

FTA-MA-80-X008

Improving Pedestrian Access to Transit

An Advocacy
Handbook

By WalkBoston



U.S. Department
of Transportation

Federal Transit
Administration



Federal Transit Administration



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16. Abstract This report was written as a teaching tool for ordinary citizens ,and for transportation and urban planners working with citizen groups, who advocate for public transit and walkable neighborhoods. It illustrates key steps that activists can take to ensure that mass transit supports community needs and creates livable communities through improved pedestrian access. The authors present their personal experience in case studies that detail advocacy techniques and strategies. They also identify some failures and setbacks. The report discussed several public transit modes (e.g., bus, light rail, and subway) used in different kinds of communities (low-income urban neighborhoods, upper- and middle-income inner suburb). The authors are from WalkBoston , a nonprofit organization that promotes walking and transit.			
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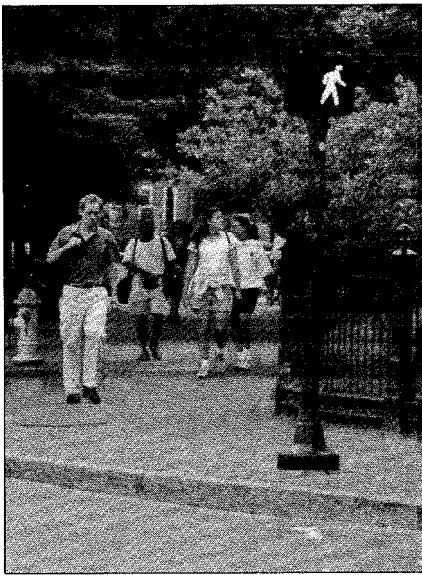
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Executive Summary



This report is written for ordinary citizens—not necessarily for transportation or urban planning officials—who advocate for public transit and walking. It illustrates key steps that activists can take to ensure that mass transit supports community needs and creates livable communities through improved pedestrian access. The authors present their personal experiences in case studies that detail advocacy techniques and strategies. They also identify some failures or setbacks. The report discusses several public transit modes (e.g., bus, light rail, and subway) used in different kinds of communities (low-income urban neighborhoods, upper- and middle-income inner suburb). The authors are members of WalkBoston, a nonprofit organization that promotes walking and transit as means of transportation.

The report was funded by the Federal Transit Administration as a Livable Communities Project. The term “livable” describes a place that nurtures the many rich aspects of day-to-day life. Residents of a livable community can work, shop, go to school, enjoy recreational activities and get to medical and public service facilities with ease.



The report is written in a more personal vein than the standard consultant report, because we believe that advocacy engages deep emotional and intellectual energies. We use quotations and photographs that share details of our experiences—both frustrations and satisfactions. We believe that this approach communicates the advocacy process accurately, and teaches it effectively.

Our case studies are drawn from transit projects in greater Boston. Two of the four case studies deal with the ways advocates reacted to two issues: pedestrian fatalities on a busy street and a threatened street-widening project, initiated by public agencies, which would hinder pedestrian access to a major transit station. A third case study describes a project that evolved from contention into collaboration between neighborhoods and the transit agency, and ultimately transformed areas of Boston into desirable, livable communities. The fourth case study deals with a proactive effort on the part of WalkBoston to increase bus ridership by creating bus stops that are attractive, easy to walk to, and contain crucial bus route information.

All four illustrate that advocates for transit and livable communities are the agents of change. Many times people in bureaucracies want to institute change, but are unable to do so. They look to advocates to suggest the outrageous, to get media coverage, to create a stir. Back in their offices, these public officials can point to your advocacy as political pressure that demands a response. They want you to come to public meetings, to write letters, to criticize. Your advocacy is vital to the success of public officials who want to innovate and create.

WalkBoston hopes these case studies will encourage you to see what can be done and what methods can be used to bring about change.

Chapter 1

Using Advocacy to Improve Transit

advocacy, *n.* The act of pleading for or supporting something.

“Never doubt that a small group of thoughtful, committed citizens can change the world, indeed, it’s the only thing that ever has.”

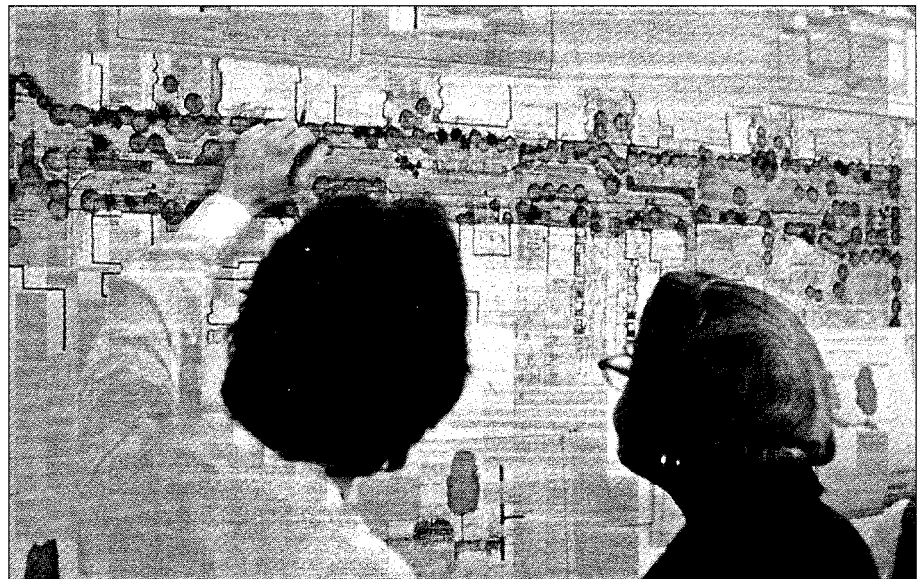
— Margaret Mead

Good public transit-buses, trolleys, subways, or commuter trains-builds and revitalizes neighborhoods.

But transit isn’t effective unless people can get to it, easily and safely. Sometimes local governments and transit agencies don’t do a very good job of providing pedestrian access to transit-then it’s up to average citizens to make it better. When average citizens work to change a situation and support a particular idea, that’s advocacy. If you want to make it easier for people to walk to transit-this report is for you. It’s written for average Americans, not for transportation experts. We hope you’ll use it as a hand-book to help you advocate for good pedestrian access to transit.

Our report looks at different kinds, or modes, of public transit (subway, light rail and bus) used in different kinds of communities (low-income urban neighborhoods, upper-and middle-income inner suburbs).

It identifies key community involvement activities that advocates can use to shape mass transit to suit local residents and create livable communities.



Case Study Format

The case studies in this report were written by different members of WalkBoston, a pedestrian advocacy group formed in 1990. They describe real-life situations-the conflict, the alliances, and the compromises that make up the advocacy process.

Advocacy in Action



Here is an example of an advocate's experience:

“ It is another steamy night in the middle of a heat wave, but we've pulled ourselves together to come to this, public hearing. The city is planning to widen a street in a dense Boston neighborhood. We can hardly believe it. This project will force residents to scurry across a seven-lane roadway with 5 seconds of WALK signal time to reach a bus and subway station.

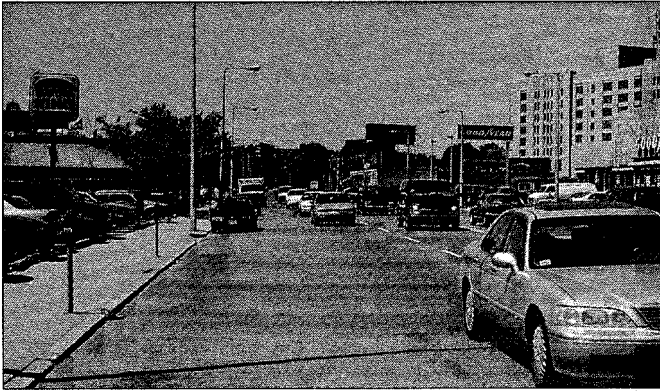
Before the presentations begin we mill around, reassessing our strategy and saying hello to friends from so many previous advocacy projects. We even exchange pleasantries with the proposal's supporters. The city's transportation engineer, who is part of the road-widening team, says hello. She sees me as a familiar face among 100 hostile strangers. I warmly greet a man from the transit authority; we are on opposite sides of this project, but we both believe in the richness of diverse urban neighborhoods and have labored for that shared goal in the past.

I love this drama of community life. Years ago, I was lonely, new to town, and without a lot of connections. I vowed to do something to meet more people. I had no idea my efforts would reap such a harvest. I know at least 20 people in this room.

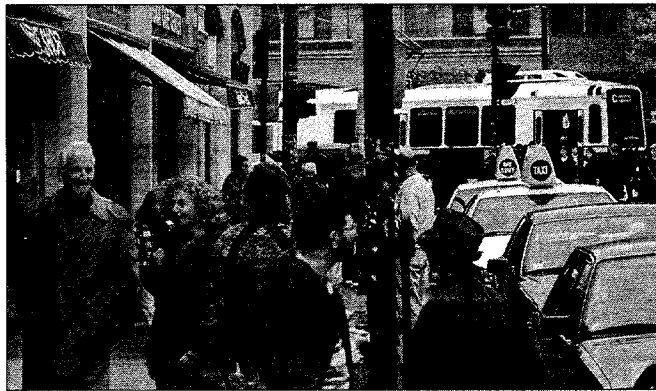
A consultant for the road-widening team whispers to me. 'I wondered when *Walk*Boston would finally come out to oppose this project.' I feel a twinge of guilt. With minimal staff, we must rely on volunteers to attend meetings and provide the technical expertise that makes us credible. We are already spread so thin. 'I know we're late,' I answer, 'but we're doing the best we can.' He nods, 'Try to stick with it.'

The raucous meeting of community activists, state legislators, public officials, and advocacy groups like ours goes on for some time. We try to persuade the city to consider an alternative traffic plan. But, as at so many similar meetings, the results are inconclusive. The representatives of the state environmental agency decide to extend the public comment period on the road-widening. We will all need to write more letters, get the media's attention, band together and do what we can.

”



Wide roads (above) bordered by narrow sidewalks, parking lots and strip malls are uncomfortable pedestrian environments. whereas neighborhoods in which a range of transportation choices encourage easy walking access (right) are "livable communities. "



Even if the road widening described in this vignette goes forward, this advocate knows that it is important to seize the opportunity to speak out for transit riders and the community: Eventually, decision-makers will listen,

Many bureaucrats resist change. Some public officials may not be up-to-date on new developments. Others may have formed their professional outlook in the car-oriented era and do not want to rethink their views.

Often bureaucracies look askance at innovation. But other public officials and consultants value livable communities and welcome voices of support. Back in

their offices (if not in public) they can argue that your advocacy demands a response. Your support of pedestrian access to public transit is vital to their success.

That is why the advocate's role is crucial. The future of our communities is taking shape in the compromises, pushes and tugs that advocacy groups engage in. It is your mission to make a difference. You are the agents of change.

Elements of Successful Advocacy



"I was telling Mary Beth at a cookout what I was doing these days, and it turned out she had worked in public relations and is willing to help."
-Advocacy chairperson, WalkBoston

The authors agreed on seven basic elements of successful advocacy, described below. Icons representing these elements appear in the case studies. Many of the "Important Lessons for Effective Advocacy" at the end of each case study repeat these elements of advocacy, but some are specific to particular kinds of projects.

I. Organize

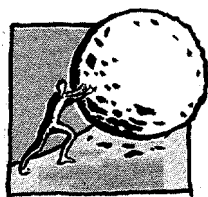
"I agree that pedestrians should be represented on the transportation committee, but I can't appoint you as an individual. Why don't you organize a pedestrian group, so I can appoint you as its representative?" Within six months of this advice from the Massachusetts secretary of transportation, WalkBoston was born.

There are three important reasons for organizing. 1) Organizations have more credibility than individuals do. 2) Your organization's members bring a variety of perspectives and skills that energizes and sustains your advocacy effort. 3) Organizations bring increased community contacts and awareness; the earlier you hear about problems or plans for your neighborhood, the earlier you can get involved. The earlier you get involved, the more likely you are to succeed.

Organizations do not always need to be large. Sometimes small, lean organizations can be very effective. You can organize your apartment building or your block, or you can find volunteers among a more widely dispersed group of like-minded people, ready to unite over an issue such as installing a WALK light at a dangerous crossing.

Talk to people you come in contact with — at church, your children's school, or the supermarket. They may decide to join your organization,

Advocacy organizations often start out as a group of people who get together to correct a local problem. Once the problem is solved, they find the experience so rewarding that they decide to organize formally, recruit more members, incorporate, and undertake fund-raising.



2. Persist

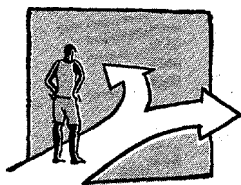
"I can't believe that Jack [director of our transportation department] is insisting on WALK signal lights at every transit stop. For years we thought he never listened. Now he's beginning to sound like one of us."

— Member of Beacon Street redesign committee, Brookline, MA

"How much more information does the transportation board need? How many more meetings do we need to attend?"

We are ready to go out and paint stripes on the streets ourselves."

— Chairman of a neighborhood association traffic calming program



3. Provide **solutions** and alternatives

You can oppose and stop a bad project. But if it is possible, use the situation as an opportunity to offer an alternative plan that will improve the current situation. Suggesting a realistic alternative can also build credibility for your advocacy group.

Talk, listen and understand. Express your concerns and your reasoning clearly. Listen open-mindedly to the needs of your opponents. Make sure you understand each other. Can you meet their needs and yet achieve your objectives? If you are unsure about how to develop an alternative, seek help from a sympathetic professional who may volunteer his/her services.

An alternative solution may demand compromise. That's OK. Usually it is better to get 75% of what you want than none of it. Remember, some people in the opposing camp may agree with you. They cannot support

"The one thing I always liked about Ann was [that] when she disagreed with you she always presented an alternative."

— Transit official who worked on the Southwest Corridor project



*"I disagree with Roger on every position, but he's consistent and takes our committee work *very* seriously. He even calls *me* in advance of meetings to discuss the agenda. I actually respect him more than some of our allies."*

— Community organizer

your opposition publicly, but may be able to support an alternative plan presented as a compromise. Alternatives let everyone save face.

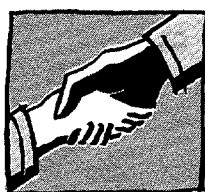
4. Respect your opponents

Make the effort to understand other positions and the issues that your opponents must deal with. Be courteous to them. If you are a committed advocate, you are going to see these people again, and being personally negative is not an effective strategy.

Remember that project managers often have invested a great deal of time and energy in a project before they meet with community members. They are understandably exasperated when community activists like you bring up problems. Also, they may be the people who are responsible for finding the extra time and money needed to meet your objectives.

Don't make negative assumptions about public officials, bureaucrats, and their employees. In fact, you should cultivate friendly contacts with them. These allies can supply helpful background information. Just remember the primary rule: never name your sources, even to advocacy colleagues. A reputation for discretion is invaluable.

If you cultivate mutual respect, even people who hold positions widely divergent from your own may change. Their next project may even use some of your ideas.



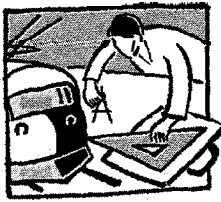
5. Develop **coalitions** with other groups

Working in coalitions may seem messy, unclear and inefficient, even for the most committed. Everyone needs to be kept informed, and meetings must be held to work through each group's approach to the issues. Your group may have to modify its goals to fit the consensus. But in the end, coalitions have a greater range of talents and far more political clout than individual organizations have.

Furthermore, politicians who are reluctant to appear to "give in" to the demands of a specific advocacy group more easily compromise with a coalition that represents a broad cross section of voters.

*"I'm *really* tired of going to our Thursday coalition meetings, but we won't be successful without the North End Neighborhood Group. They have access to the mayor."*

—Executive Director, WalkBoston



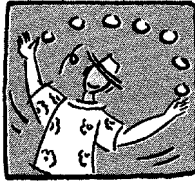
6. Get expert help

Professionals—traffic engineers, lawyers, landscape architects and others—speak the same language of concepts and jargon that public agencies do, which makes them invaluable. These allies can give you general background advice and write letters of support. More important, they can provide crucial technical services when you want to develop a plan to present to public officials. With luck, you can find professionals who share your views and will provide services for free.

You must also get help in understanding the review processes that any sort of public project goes through. Even the installation of one traffic light is reviewed by your town or city government. Large projects go through several reviews (environmental, historical, planning), usually mandated by state law, that include opportunities for public comment. If you want to support, defeat, or modify any project, you must know what the process is, and where the project is in that process. Then you will know when public hearings will be held, and when you should call or write to news media, public officials, and elected representatives.

Regional planning agencies are excellent sources of this information. In metropolitan Boston, for example, the Metropolitan Area Planning Council serves 101 cities and towns, providing citizens with technical assistance and with information on review processes and planning issues, including those regarding transportation. Local planning boards are also good sources of information. Even a small city of 15,900 people has at least a volunteer planning board, and many larger towns have a paid community planner as well. In large cities each neighborhood may have its own planner; city transportation boards are also common (some even invite neighborhood groups to comment on projects). Get to know these people and develop cordial relationships.

Other people who can help with sorting out these review processes are environmental lawyers, people who work for environmental and engineering consulting firms, and people who work in historic preservation.



“There is a social aspect to being active in community politics. It’s going out with the crowd after town meeting to get something to eat and to listen to Ellen sing torch songs. Without this, I might not be a town meeting member.”
-Advocate, Brookline, Massachusetts

7. **Have Fun**

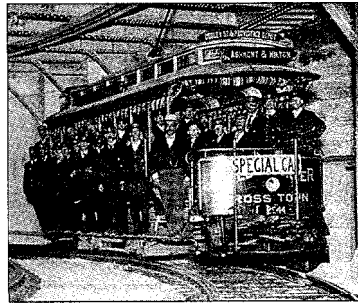
A shared experience with other people striving for something you all truly believe in is a great reward. When you get involved in your community, you make new friends (some even meet their future spouses), you acquire new skills, and you develop contacts that might be useful in your work. When you walk down the street, you enjoy the difference you made; you and your friends had those signs put up; you got that section of sidewalk repaired.

When the going gets tough, maintain a sense of humor and a sense of the ridiculous.* Enjoy small victories along the way Have fun so that you can persist and ensure ongoing volunteer involvement. And don’t forget the coffee and cookies. People socialize over food and drink.

*Keep in Mind the Classic Six Phases of a Project: 1. Enthusiasm; 2. Disillusionment; 3. Panic; 4. Search for the Guilty; 5. Punishment of the Innocent; 6. Praise and Honor for the Non-Participants

Chapter 2

The Background of this Report



An Overview of the Transit System in Greater Boston

Boston is known as a walkable city.

Parts of the downtown area maintain a large population at night and on weekends. The public transit system, the oldest in the country, has celebrated the 100th anniversary of its first subway line.

Greater Boston grew with its transit system. Hence, many area communities have compact development patterns with transit stations at their core.

Because of this long tradition, transit in greater Boston is extensive and heavily used. The Massachusetts Bay Transportation Authority (MBTA) serves 78 communities with a weekly ridership of over 5 million trips. In terms of passenger trips per year, the transit system is the sixth largest in the country: Taking "the T" is a fact of life. Students from the many local colleges and universities use the system, but statistically the typical rider is a middle-class professional between 25 and 44 years of age who lives in a household that has only one automobile. The state's transportation research agency estimates that 90% of all passengers walk to bus or rail service.

The system's major transit lines converge in the heart of the city. At rush hour, 70% of all commuters reach or leave downtown Boston by a combination of walking and transit. A parking freeze which limits the build-

MBTA System

Facts & Figures

Light and heavy rail stations: 131

Commuter rail stations: 85

Bus stops: 8,000

Riders (trips taken)
per week:

Systemwide: 5 million

Buses: 1.85 million

Rapid transit (including subway):

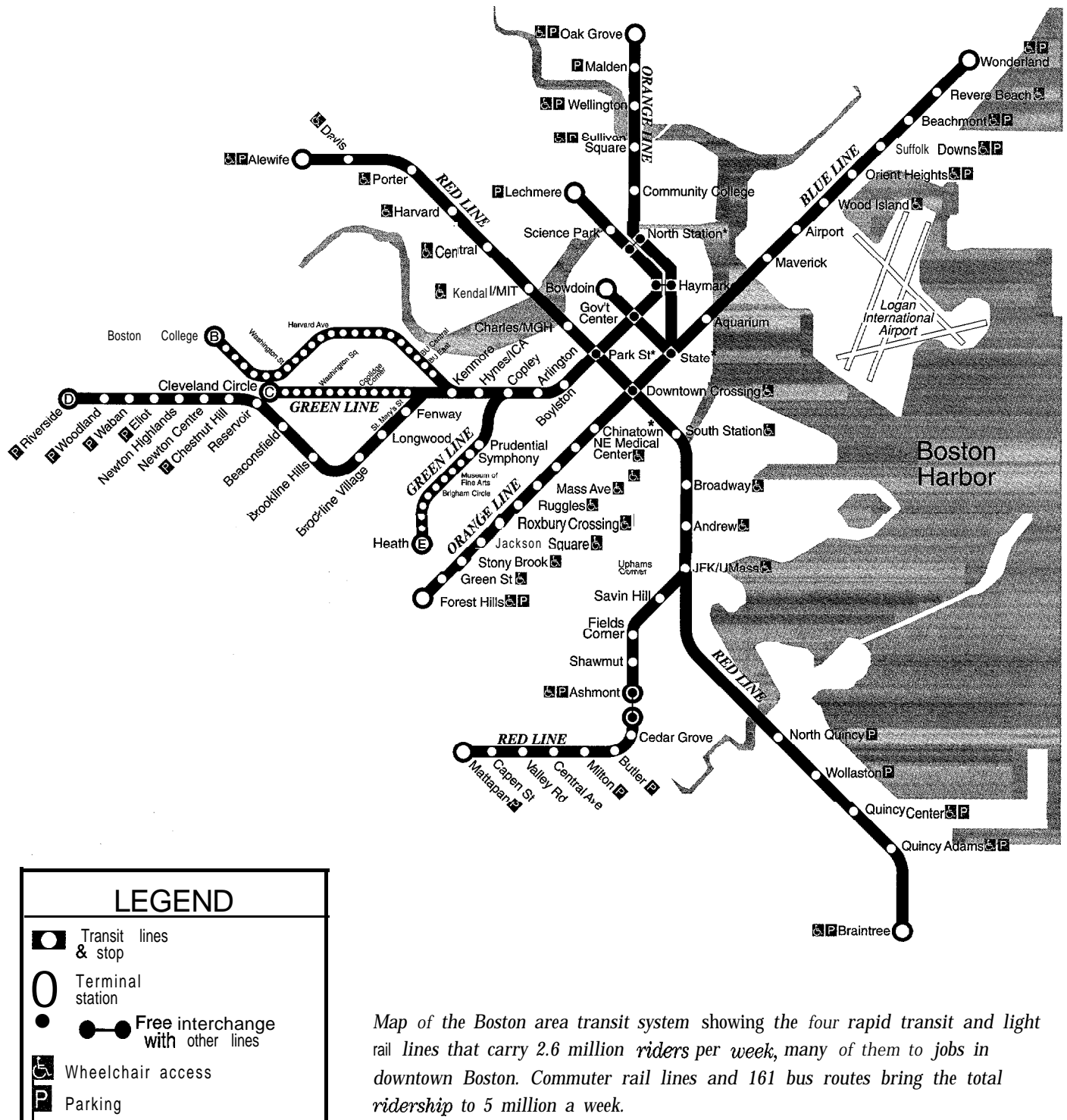
1.66 million

Light rail: 0.98 million

Commuter rail: 0.43 million

Source: Central Transportation Planning Staff, Boston
Metropolitan Planning Organization.





Map of the Boston area transit system showing the four rapid transit and light rail lines that carry 2.6 million riders per week, many of them to jobs in downtown Boston. Commuter rail lines and 161 bus routes bring the total ridership to 5 million a week.

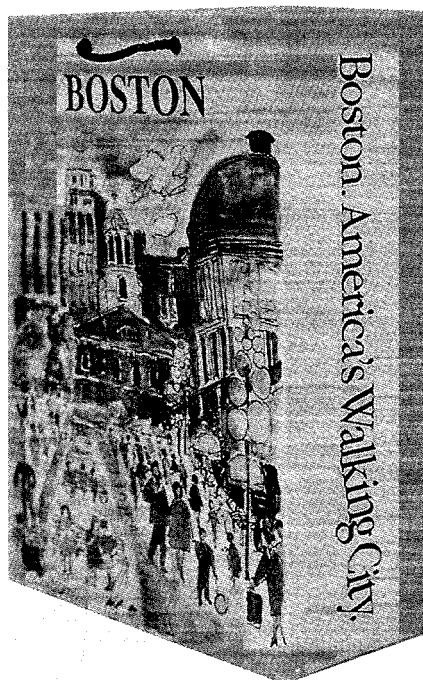
ing of commercial parking garages downtown augments the heavy reliance on transit. Parking prices range from \$2 1 to \$26 a day, making public transit the obvious choice for some commuters. The transit agency is currently expanding commuter rail service, both by extending commuter lines and by building more park-and-ride garages and lots.

The Role **of** Greater **Boston's** **Transit** Agency in Creating Livable Communities

During the national urban revitalization movement of the 1970s and early 1980s, community groups throughout the country sought to improve housing, social services and transit in urban areas, following ideals that evolved into the concept of livable communities. At this time, the MBTA invested over 1.5 billion dollars in expanding and upgrading the system. The public began to view transit improvements as essential to livability.

Boston's high level of community advocacy for pedestrians and public transit owes much to events described in Chapter 3. In the late 1960s and early 1970s, citizens fought determinedly to defeat a state plan to construct an interstate highway through their communities. When they finally won, state and federal agencies invited them to participate in designing a transit corridor and linear public park where the highway would have been. A tradition of public participation, both opposing and cooperating with the public sector, was established. As bus and rail lines were planned for their neighborhoods, advocacy groups developed to ensure that transit met community needs and that people could easily and safely reach it.

This tradition of strong civic involvement continues today. The case studies described in the following chapters highlight some ways in which advocacy has been carried out.



"Walkability" increases tourism to Boston. The ease with which a visitor or resident can get around a city by transit and on foot affects the city's livability.

Chapter 3

Community Involvement and **Activism**

This case study looks back at a \$743 million transit/rail project which began in conflict and ended in a collaboration between community residents and metropolitan Boston transportation agencies. This account also describes how transit rebuilt and revitalized low-income, “wrong-side-of-the-tracks” neighborhoods scheduled to be demolished for an interstate highway. That revitalization, in turn, has contributed to the growth of the transit system and the creation of thriving communities along it.

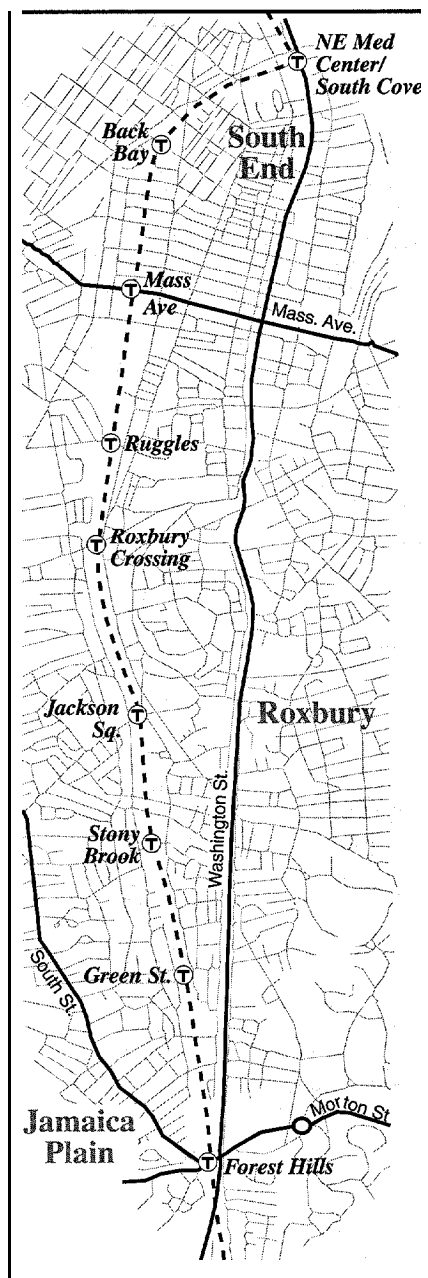
The Southwest Corridor Today and 30 Years Ago

The Southwest Corridor is a 5-mile transit/rail line bordering three Boston neighborhoods: the South End, Roxbury, and Jamaica Plain. Opened for service in 1987, its nine attractively designed stations serve rapid transit trains, buses, commuter rail and Amtrak trains. All stations feature art. Some have commercial space, pushcart vendors, or community-use space.

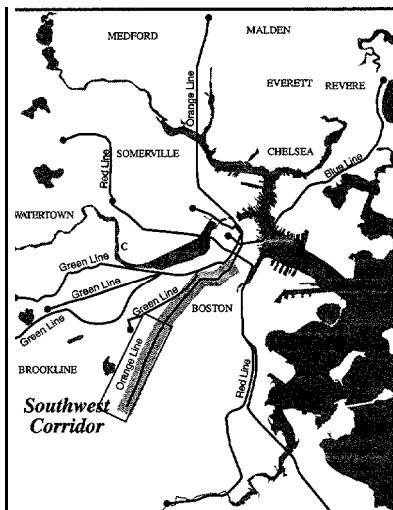
A linear, beautifully landscaped park stretches the length of the corridor. Its 60 acres contain well-lighted walkways and bikeways, 11 playgrounds, 21 athletic courts, 2 spray pools, and 150 community garden plots. This Southwest Corridor Park serves commuters, tourists, and almost one-third of Boston’s residents: children at play, skateboarders, bicyclists, walkers, and gardeners.

The linear park in the Southwest Corridor was the result of the efforts of a coalition of citizen activists.





This drawing of the interchange planned for Roxbury Crossing was used to organize opposition to the highway.

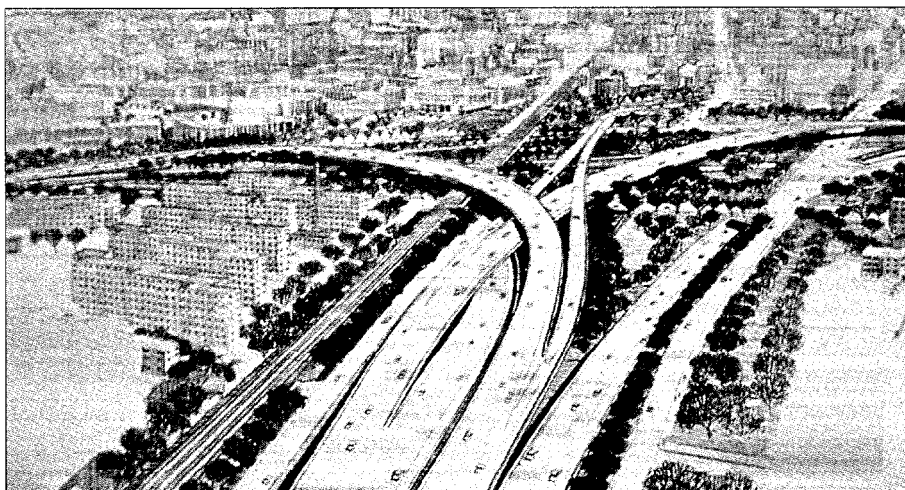


The Smile long Southwest Corridor is an important greenway serving people walking and on bicycles as well as a major new transit route for the city's Orange Line.

The **Battle** for the Corridor

In the late 1960s these three low-income neighborhoods bordered five tracks of mainline rail service between Boston and Washington, DC, which were slated to be replaced by an eight-lane interstate highway and two rapid transit tracks. Thousands of houses and businesses were to be torn down; 1,000 structures had already been demolished in the politically weakest areas.

Of the three neighborhoods, Jamaica Plain, a blue-collar community of close frame houses, breweries and railroad businesses, was the only one with political strength. The South End was an immigrant entryway, though some of its rundown Victorian houses had recently been sold to young professionals as part of an urban renewal plan; houses along the tracks were predominantly owned by African-Americans. Roxbury, a

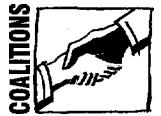


Giant *anti-highway* sign painted on the *former* railroad embankment in Jamaica Plain. **Businesses and residences** in the foreground had already been torn down.



primarily African-American neighborhood, was also Boston's poorest.

Each of the three neighborhoods organized independently to defeat the highway-developing information, coalescing residents, and putting political pressure on elected representatives and the mayor of Boston. But they also joined together in a Southwest Corridor Coalition and linked as well into a broader regional anti-highway coalition that was fighting several proposed interstate highways in the Boston metropolitan area.



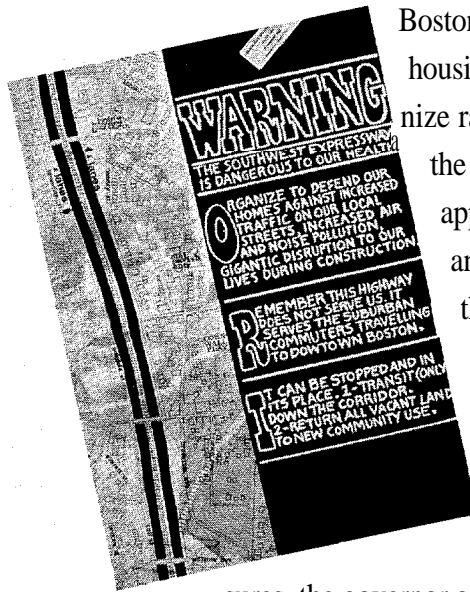
The five organizers of the South End group included newly arrived professionals and longtime residents, each possessing different strengths. The longtimers talked with homeowners to persuade them not to sell out, that the highway was not inevitable. They obtained a small grant to pay for expenses such as photocopying flyers.

The newer residents, using legal help, funded a private mortgage to save three houses slated for demolition. They also pressured the mayor of



“ A twenty-five-year career in transportation began with raising my hand to volunteer. A mother of a one-and-a-half-year-old and new in the neighborhood, I had gone to a meeting at the local settlement house to hear about a highway planned along the end of my street. At the end, several men were chosen to follow up, then I heard ‘any other volunteers?’ Much to my surprise, my hand went up. Getting involved was as easy as that. ”

A flyer used to alert and inform neighborhoods.

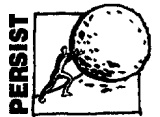


Boston and the redevelopment authority to suspend housing acquisitions. The group learned how to organize rallies. They discovered how to use the media to educate the public and apply political pressure. Through trial and error, they learned which reporters to call when they wanted to publicize facts, like the huge number of homes slated for demolition, or to alert citizens to upcoming events, like a hearing. Eventually, and crucially, they even gained the mayor's support.



In 1970, responding to regional pressures, the governor announced a moratorium on all the proposed highways and initiated a \$3 million federally funded highway restudy which, for the first time, included community activists as full participants. This new access to information and decision-makers crucially empowered community advocates to make effective arguments.

In late 1972, the governor cancelled the highways and announced that intercity rail, commuter rail and rapid transit into downtown would be built in the Southwest Corridor instead. The leftover empty land purchased for the highway could be redeveloped.



Why Planning **for** the New Corridor Worked

"It was comical. For two years we had been out leafletting, holding public rallies, writing letters, talking to the press. Then the mayor decided to run for governor and, in order to get our Ward Committee's three votes at the convention, he committed to oppose construction of the bypass in our neighborhood. Just like that-it was done. "

— South End activist

Project planning began a year later under auspicious circumstances. First, the governor set up a special Southwest Corridor project office to oversee this huge undertaking, which cut across so many state agency responsibilities. About a dozen individuals of uncommon openness, imagination, and ability were put in charge. Second, both the resident advocates and the staff of this planning office recognized that the new transit corridor presented opportunities to rebuild communities that had been damaged by demolition for the highway. Third, the funding agency for the project, the Urban Mass Transit Administration (UMTA, now the Federal Transit Administration), likewise endorsed community-enhancing design.

In addition, community members shared 1) commitment to

Governor Francis Sargent speaks to an anti-highway rally on Boston Common. Later, he cancelled plans to build highways.



construction of a new rail transit corridor, 2) dedication to the neighborhoods which they had saved, and 3) the cohesion and trust that developed among the three neighborhoods during the anti-highway battle. Without such commitment and cohesion, the building of any linear facility can be obstructed at any point, as has happened since in several Boston-area rail and transit proposals.

The three neighborhoods along the tracks again kept in touch with each others' goals through the Southwest Corridor Coalition.



The resident activists' first task, especially in the South End, was to convince newcomers who had not been involved in the anti-highway battle to accept active rail and rapid transit lines within 5 - 200 feet of their homes and to give the transit agency a chance to design a project that the neighborhood could live with. Fortunately, residents generally trusted neighborhood transit advocates, in part because some key individuals who played continuing, crucial roles lived less than a block from the tracks themselves.



How the Process was Organized: Committees, Committees, Committees

The project office set up three section task forces, one in each community, open to all interested residents. Task force participants took part in all major design, engineering, landscaping, and station design decisions. Consultants working for the project were required to attend all meetings where their plans were presented and to take community concerns back for further work. In frequent meetings and hearings, open to all, every view-

"We originally looked at it as just another job, attaching it from the technical viewpoint alone. We were going to go in and do our thing. The more we got involved, the more we realized it wasn't just another subway project. There was more to it and it broadened us. You considered what the effect of everything you did was going to be on the neighborhood. It wasn't us and them. It was all of us in it together."

-Robert T. Loney, Fag, Spofford and Thorndike, transportation engineering consultants



Residents of the South End at a task force meeting.

point was heard and, if possible, consensus was reached. The work of the meetings progressed over time from basic logistics to details of the final design. Corridor-wide meetings were held for issues that crossed neighborhood boundaries.

Each section also had a local field office where residents could get information and a "section planner" who prepared meeting minutes and a newsletter, kept in touch with local concerns, and posted informative bulletins at construction sites. Nine station area task forces and nine art committees, one for each transit station, worked on design issues and art selection. Other committees were set up as needed.

One project office staff member who lived a half-block from the tracks became a key contributor to the ultimate success of task force meetings. Formerly a member of the South End's anti-highway group, he was trusted in all three communities. When neighborhood and project aims could not be reconciled, he pushed consultants and state agencies to make every effort to achieve what the community wanted. If accommodation was not possible, he straightforwardly explained the decision to community members. Gradually, with give-and-take on both sides, mutual trust and respect developed between project officials and the community. Residents accepted that some unwanted features were truly necessary, and the project kept moving forward.

The **Process** in Action

The remainder of this case study examines how a couple of issues were addressed during Southwest Corridor planning.

The tracks — The existing railroad tracks ran at grade (ground level) in the South End and up on a 22-foot embankment in Roxbury and Jamaica Plain. Rail service in the new Southwest Corridor was projected to be frequent and noisy — 800 trains a day. The project office planned overhead catenarywires and high, wall-like fencing along the tracks. All three neighborhoods argued that the new line should be below ground level. The local transit agency insisted that depressing 5 miles of track would be prohibitively expensive. After a heated public hearing, federal transit officials agreed to provide funding to lower the elevated tracks in Roxbury and Jamaica Plain slightly below grade, while leaving them at ground level

through the South End. The communities accepted this solution.

However, as the South End section task force began to discuss design details, community concern grew. Houses in this community were especially close to the tracks. Residents learned of potential vibration damage and of possible construction-related damage to the piles supporting their homes. When they began to focus on the noise that 800 trains a day would produce, they decided to seek help.



A noise consultant who lived near the tracks measured the noise from the 90 intercity trains that were using the tracks daily, projected the noise for 800 trains a day, and presented a professional (and loud) simulation to project officials and the Massachusetts secretary of transportation.

The task force focused on visual issues too. A local transportation planner showed neighbors and project officials photographs of the unsightly

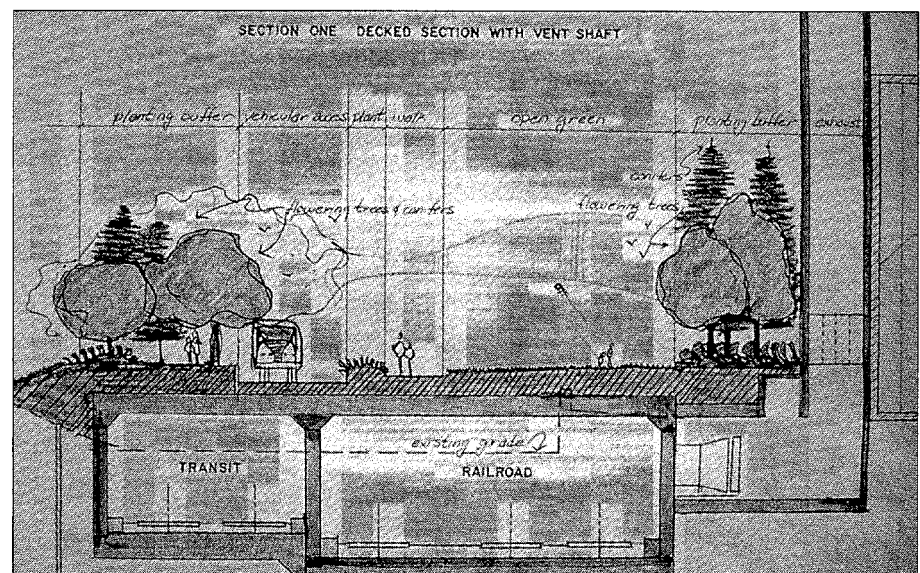


overhead commuter rail power lines seen in southern New

England. A local landscape architect addressed concerns about ugly noise-barrier fences and the ends of streets by drawing up a plan for a landscaped, 6-foot-high berm which would both beautify the ends of streets and muffle the noise.

Thus, over a couple of years an increasingly sophisticated and resourceful South End community forced the project office to address seriously the problems of noise and visual blight. Community pressure for depressed tracks revived, with the added argument that the tracks should also be covered.

On this page, a drawing shows how the rail *lines* are decked over to create parkland above in the South End and in *some* other sections *of* the corridor. On the opposite page, a photo shows trains along the rest of the *corridor* down in a 20-foot-deep open cut, with parkland along the *sides*.



This debate intensified in meeting after meeting. Meanwhile, project staff made a series of design changes to try to resolve these issues, especially the problem of noise. Noise walls and the need to minimize vibration damage to houses would require additional structures and widen the space needed for the tracks. Some houses might be taken. Loop roads providing emergency access would be eliminated, to which the Boston Fire Department objected.



Finally, under heavy pressure from South End advocates, the project office concluded that depressing and covering the tracks was the only acceptable and feasible solution for the South End. They convinced federal agency officials to release additional funds. Advocates in Roxbury and Jamaica Plain won an agreement to lower the tracks further — to 20 feet below grade — and to have the tracks covered in some key areas to be chosen by community participants.

Fortunately, during these years of task force meetings federal legislative changes had loosened funding. Ample funds made the design decisions easier.

Designing the park — Once the decision to depress the tracks was final, project and community attention turned to designing the open areas saved from the highway. Residents of the three communities felt as if they owned the parcels of land along the corridor and at ends of streets. Designing this land was their well-earned reward for many years of effort.



Project staff envisioned the Southwest Corridor as a large regional park, comparable to Boston's string of parks called the "Emerald Necklace," which would be managed by a state agency rather than the underfunded Boston Parks Department. But to qualify as a regional park, the parcels in the three communities would have to be interconnected by means of, for instance, bikeways and walkways.

Before and *after* photos on these two pages show the dramatic change in the South End from open railroad tracks to community park.

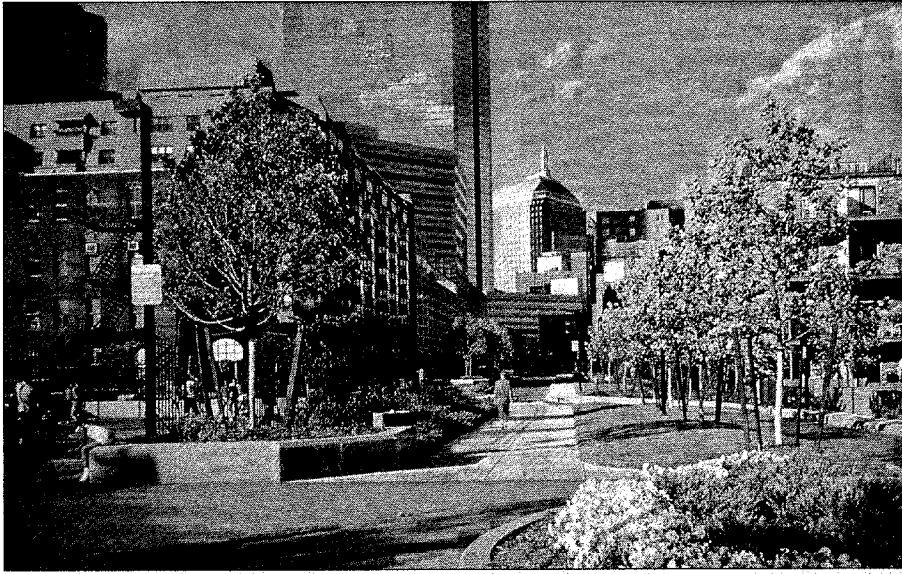


Neighborhoods in some of the three communities feared that the regional connections, especially the bike paths, might bring undesirable strangers into their areas. They worried about the proximity of bicycle and pedestrian paths to neighborhood play and sitting areas, about potential hiding places, and about benches which might encourage loitering. They wanted playgrounds and tennis courts sited so they could be observed from adjacent houses.

In many small meetings, project staff and landscape architects worked with residents to explore these fears and determine what they wanted built: basketball and tennis courts, places for children to skateboard, spray pools. In one neighborhood parents wanted to involve the children in thinking about designs. With materials provided by the project, they made models which the children used, moving the pieces around and making some choices.

Gradually, through participation and back-and-forth, community residents began to give up their fears about outsiders. The landscape architects, sensitive to their concerns, located pathways away from dwellings and play areas, chose low shrubs which would not provide blinds for ambush and trees which could be trimmed up for easy surveillance. They placed play facilities and benches where neighbors approved them. As you walk along the Southwest Corridor Park today you see intimate community gardens and tot lots, as well as larger facilities for energetic teens and adults, all joined together by continuity of





landscaping material, walkways and bikeways.

The collaboration fostered among residents of the South End, Roxbury and Jamaica Plain has continued. In the early 1990s, state budget shortages reduced the maintenance budget for the Southwest Corridor Park. Volunteers — today about 60 of them — took over.

They prune, water, mow the grass, pick up trash, plant bulbs, and rake



leaves. A community oversight group lobbies for state funding for maintenance and improvement, and arranges fund-raising barbecues and festivities.

A Livable Community

Though the Southwest Corridor was an unusual and large project, its lessons are universal: it takes time and effort to include the people affected by a project in an open, respectful, and honest way. It takes perseverance for a neighborhood to keep pushing and stay the course. But the resulting product is likely to be admired and maintained for years.

Several major Boston-area projects funded by the Federal Transit Administration have been designed similarly, with the dual goals of providing transportation and enhancing communities. The Southwest Corridor Project provides excellent transit service into downtown Boston by intercity, commuter, and rapid transit trains. It also connects major activity centers — universities, business districts, housing projects, and hospitals. The attractive parkland encourages people to take transit rather than drive into town.

Ridership has grown, as have tax revenues to the city of Boston. Transit has spawned new housing, especially near transit stations, and construction of the upscale Copley Place mall, new businesses, and new university and office buildings. Together, the far-sighted, community-building attitude of the Federal Transit Administration and the participation of grateful neighborhood residents have created a thriving, transit-based, livable community.

Important Lessons **for** **Effective** Advocacy

1. Never give up. Wearing down your opposition and creating an acceptable alternative may take years, but when it is understood that you are not going away, you will see movement toward your goals.

2. Respect your opponents. Work with agencies, designers and engineers in a respectful way. Try to understand their arguments and constraints. A relationship of mutual respect will pay off again and again with unexpected information, sympathy and concessions,

3. Respect yourselves. Have confidence in your perceptions and work to communicate them clearly so the other side will understand you. Ask questions if something is unclear. You know things about your neighborhood that the professionals don't. And you will be living with the results.

4. Use a variety **of strengths.** Enlist professionals, politicians and grassroots activists; get legal and legislative help. Allies with a variety of skills and outlooks offer a wealth of tactics, increasing your chances of success. When compromise is necessary, these allies can help you find innovative solutions to seemingly irreconcilable disagreements.

5. Make common cause with other groups. Stick together even if compromises must be made. Numbers add power and influence.

6. Keep a sense **of humor, celebrate **successes along** the way, enjoy each other.** Otherwise, you won't stick it out. Participants in the Southwest Corridor project met their neighbors and gained lifelong friendships.

"I was appointed to a new regional transportation advisory committee. The jargon at the first meeting was going right over my head. I asked the man on my right if he understood what was being said. He shook his head. I asked the man on my left. Same response. And I had thought I was the only one! I asked the speaker to explain. Faces around the table lighted up with relief."

*-Southwest Corridor
community activist*

Chapter 4

Citizen Coalition Forms to Stop a Road-Widening Project Near Transit

Ruggles Station

Passenger Trips per Day

(including transfers)

Subway Trips	15,758
Bus Trips	17,001
Commuter Rail	1,000
Total	33,759

Passengers Who
walk to **Station**
per day:
14,587

Source: Central Transportation Planning Staff,
Boston Metropolitan Planning Organization.

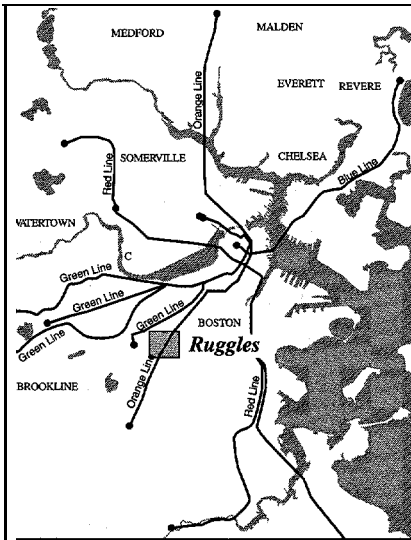
This case study deals with a local conflict, repeated nationwide, between transportation officials who want to provide roads for commuters driving into the city and city residents who want livable neighborhoods. Socioeconomic status can play into this controversy, since low-income urban communities, which typically rely heavily on public transit and walking, sometimes lack political clout. For the past 20 years, the Roxbury section of Boston has been subjected to several projects that widened roads or converted parking to travel lanes in order to move more commuter traffic through its neighborhoods.

This case study demonstrates how advocacy groups can utilize state and federal review processes, as well as grass-roots organizing and coalition building, to ensure that government-initiated projects are good for communities.

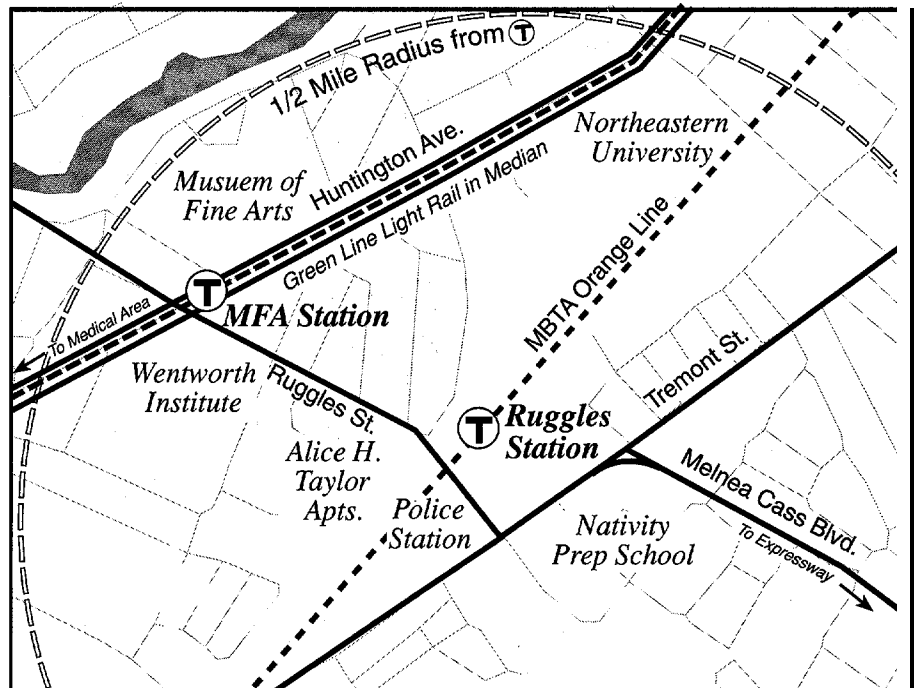
A Dangerous Proposal

Ruggles station in Roxbury, at the corner of Ruggles and Tremont Streets, is a transfer point connecting 14 bus routes, a subway line, and commuter rail. Within a half-mile of the station are the Boston Museum of Fine Arts, Northeastern University, three churches, two elementary schools, a neighborhood health center, and three public housing developments. Another station for a different transit line is also close by, so the area is well served by transit. To get to Ruggles station local residents must cross either Ruggles or Tremont Street, and unfortunately both streets carry heavy commuter traffic.





Ruggles Station is a major bus, subway, and commuter rail station. It is used by many residents of nearby housing but is hard to get to because of heavy commuter traffic on Ruggles and Tremont Streets.



In 1996, the Massachusetts Highway Department, in cooperation with the Boston Transportation Department and, ironically, the Massachusetts Bay Transportation Authority, proposed widening Ruggles Street and the segment of Tremont Street in front of the Ruggles station “to improve operational and safety conditions.” The principal features of the plan were: widening the roads to make additional travel lanes; creating new left-turn and right-turn lanes; installing some new signals, and retiming existing signals. In brief, the streets would be more difficult to cross on foot.

The Opportunity **for** Review by Citizens

A state-mandated environmental review process alerted watchful citizens to the plan. In Massachusetts, proponents (including government agencies) of projects such as this must submit to the state environmental agency a statement (an “Environmental Notification Form”) that briefly describes the project and its impact on nearby communities and environment. During a comment period that follows, the public can study the proposal and ask questions, express support, or raise objections. This is level 1 of the environmental review. If there are relatively few important issues raised during this phase, the project is likely to get a “go-ahead” from the state environmental agency.

“Ruggles Street is dangerous enough as it is.”

-Tenant, Alice H. Taylor Apartments

The Alice H. Taylor Apartments along *Ruggles Street*, showing typical non-peak traffic.



"...more than one of our students has been hit crossing the road to the transit stop... The road [width] is adequate enough for considerate drivers who do not have to get there yesterday."

—Father Alfred Hicks, Nativity Preparatory School

On the other hand, if enough well-founded objections are raised, the project is subject to level 2 of review in which the proponents are required to produce an "Environmental Impact Report" (EIR)—a much more lengthy and detailed justification for their proposal. Time-consuming and costly to produce, an EIR must address the controversial issues by presenting and evaluating alternative plans, including a "no-build" alternative.

The **Advocacy Effort:** **Residents Speak Out**

The three agencies backing this road-widening project saw it as a simple street improvement, but people living in the area saw it from a very different perspective.

At the first public meeting only a few residents voiced concerns about increased traffic in the community. People said that the streets, with rushing commuter traffic, were already dangerous. Tenants of a 366-unit apartment complex on Ruggles Street, for example, complained that the crosswalk they use to get to the Ruggles station has no traffic signal and is hard to see because it is at the crest of a hill. School administrators and church clergy cited pedestrian injuries and fatalities. Residents were also concerned about increased noise and fumes.

Organizing A **Coalition of Advocacy Groups**

The road-widening proposal also drew the attention of local bicycle and pedestrian advocacy groups, as well as environmental organizations. These groups were shocked that such a proposal was being made at a time

when many residential communities across the country are using traffic-calming measures, such as narrower streets, to slow traffic and increase pedestrian safety.

Members of the concerned advocacy organizations, along with key residents, scrambled to organize a coalition with neighborhood groups and church and school leaders opposing the plan. The advocacy groups had statistics



to back up the concerns of residents. Contrary to highway department claims, they said that adding lanes does increase traffic volumes, and widening a road *does* increase traffic speeds. Even worse, a road that has been “improved” to relieve peak hour (rush hour) congestion invites speeding during the rest of the day. The coalition also noted that doing any kind of street improvement without providing bike lanes is unacceptable. Finally, because Ruggles Street is part of a proposed “ring” transitway around Boston, the coalition, which now included lawyers and traffic engineers, argued that widening the road could interfere with this future transit improvement.

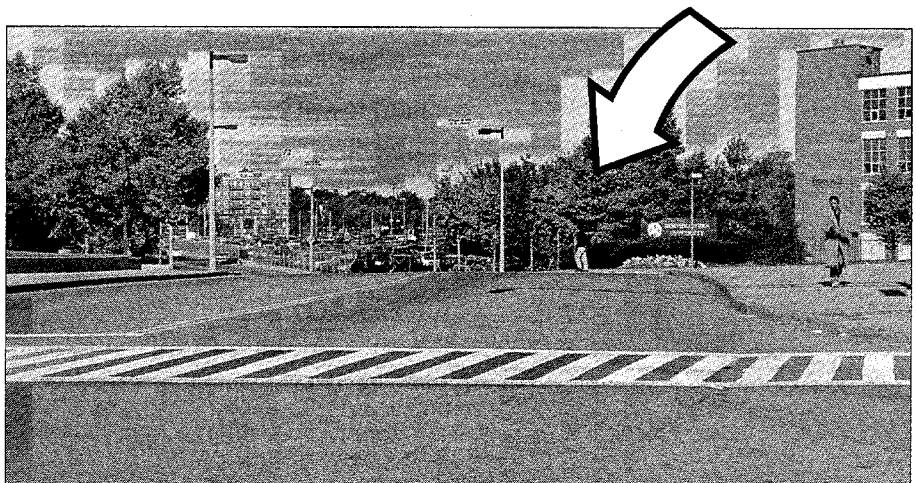
Coalition Members

Conservation Law Foundation
Bikes Not Bombs
WalkBoston
Fenway Civic Association
Earthworks
Environmental Diversity Forum
We Have a Dream Coalition
Madison Park Community
Development Corporation

Agency Obstinacy and Advocacy Response

The public agencies behind the project were clearly surprised by the growing opposition. They responded by scaling back their plans for the

One of the crosswalks to *Ruggles Station* *is* at the crest of a hill and pedestrians are virtually invisible to oncoming traffic. Can you see the *person* in the second crosswalk — the *crosswalk* in the background?



the project. The project was described as a "traffic flow improvement project" turned into a "transit project" to move buses, and then turned into a "safety project." Community activists kept challenging each justification -with some success. For example, the "safety project" claim was largely discredited when the three agencies acknowledged that the dangerous but heavily used hill-crest crosswalk had been specifically excluded from the plans.

segment of Tremont Street directly in front of Ruggles station and by making some modest improvements to pedestrian signals and a crosswalk.

The stated justification for the project-and the agency claiming primary interest in it-kept changing from meeting to meeting and spokesperson to spokesperson. What was originally described as a "traffic flow improvement project" turned into a "transit project" to move buses, and then turned into a "safety project." Community activists kept challenging each justification -with some success. For example, the "safety project" claim was largely discredited when the three agencies acknowledged that the dangerous but heavily used hill-crest crosswalk had been specifically excluded from the plans.

Nonetheless, the proponents remained stubbornly adamant on the widening of Ruggles street. The frustrated anti-widening coalition focused their efforts on the state environmental office and argued that the project should be required to go to the next level of review and produce a full Environmental Impact Report.

Informal phone trees were set up to contact individual residents, groups, and city council offices to urge them to flood the state environmental office with letters opposing the project. Flyers in both English and Spanish were handed out at a street fair to raise awareness and urge attendance at an upcoming public hearing.



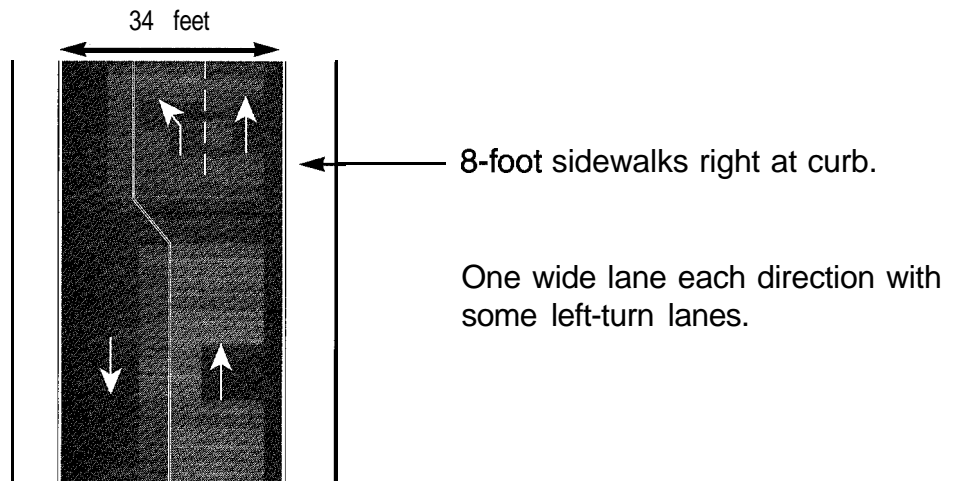
Common **Agency** **Tactics**

- Delay and prolong process in the hope of exhausting community groups.
- Shift of responsibility/change justifications, creating a "moving target" to confuse the public.
- Bury the public in technical data and professional jargon.
- Concede on something minor but not the main proposal.

Advocates' Countermeasures

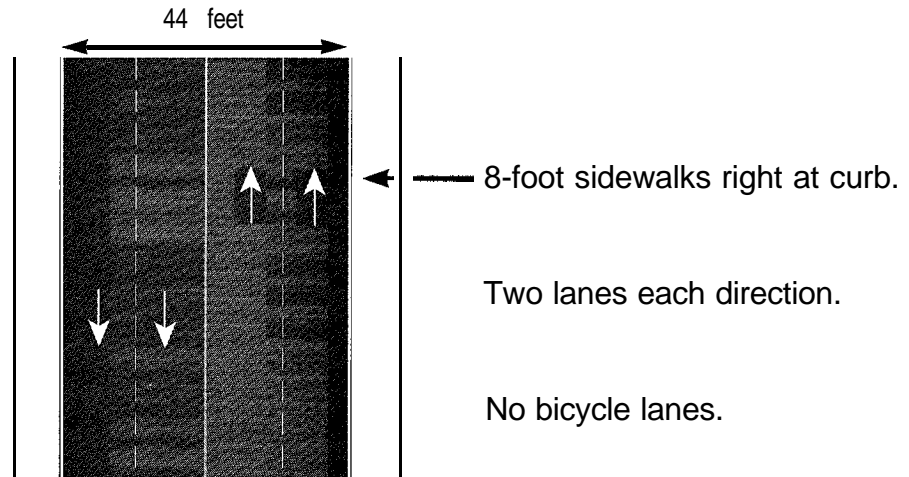
- Use time during delays for community organizing.
- Challenge shifting rationales for a project.
- Counter jargon and data with common sense, and, if possible, get a qualified transportation planner on your side.
- Acknowledge concessions as a step in the right direction, and try to build on them.

Ruggles Street as it is today



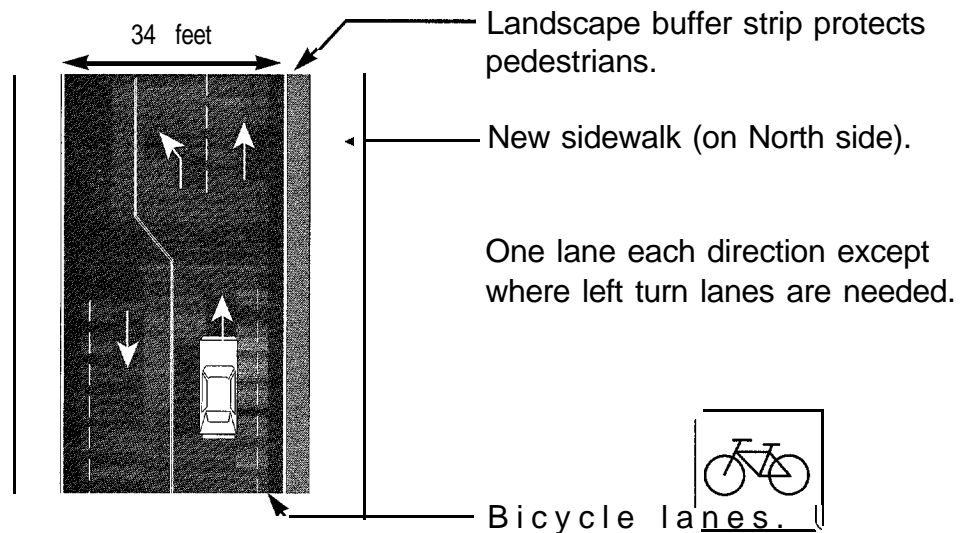
Massachusetts Highway Department Road-Widening Plan

Improve signal timing.

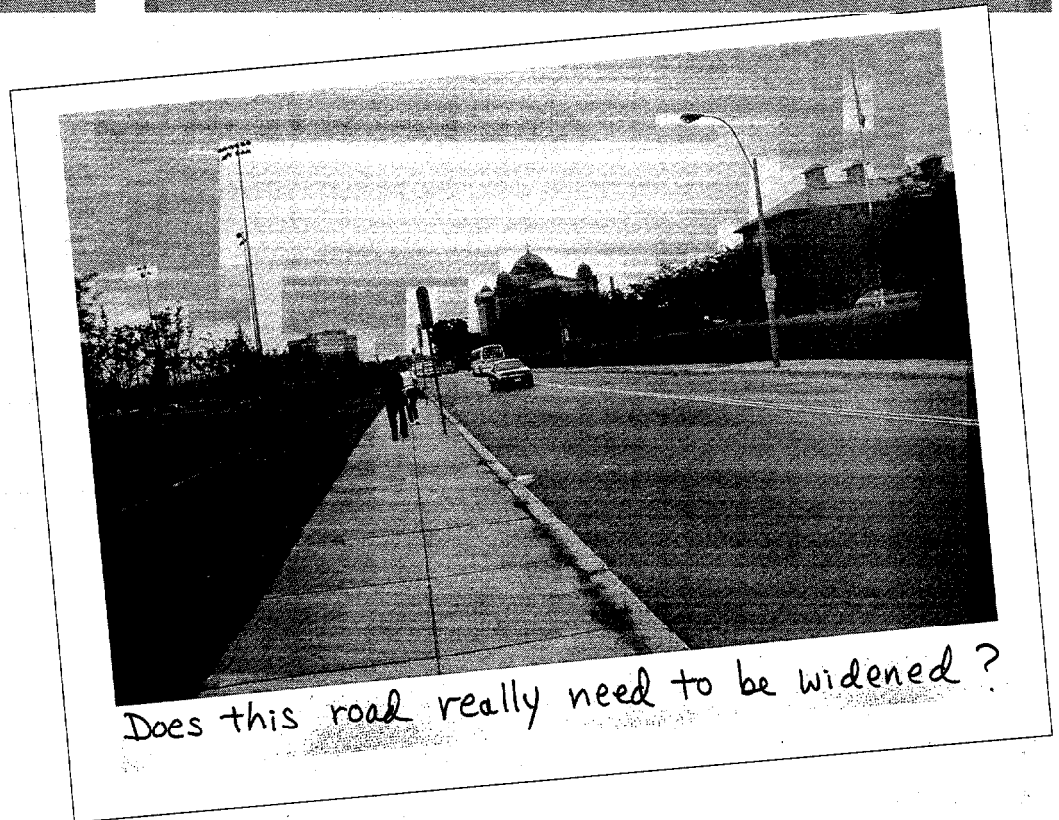


WalkBoston Traffic Calming Plan

Improve signal timing.



A neighborhood activist made *this effective flyer* to show how little mid-day traffic there is on Ruggles Street.



A **Traffic-Calming** Alternative

During this intense campaign, volunteers from WalkBoston, one of the coalition organizations, met with people from the community and drafted an alternative proposal to present to the state agencies. A professional traffic engineer analyzed the traffic and pedestrian conditions and suggested a traffic calming strategy that would improve pedestrian safety, access to transit and the movement of buses.



Key elements of traffic-calming plan:

- no road widening
- one travel lane in each direction, except for new designated left turn lanes at three key intersections
- additional traffic signals, especially at the dangerous hill-crest crosswalk to the T station
- improved signal timing (fast cycle with a shorter wait period) and concurrent walk cycles with vehicle green
- added bike lanes
- wider sidewalks, set back from roadway by landscaped buffer
- removal of “free-right turn” (or channelized-right-turn) lanes

The **Effects of** The Controversy

After all the organizing, leafletting, phone calls, and letter writing, the broad-based effort to block the state's road-widening plans paid off: The state environmental office had received objections from so many and such varied sources that it required an EIR for the project. And among the alternatives that the EIR must examine will be the coalition's traffic-calming plan.

Although the ultimate outcome is unknown, the Ruggles/Tremont controversy has already made a valuable contribution to transportation planning in Boston: Government agencies were put on notice that old-fashioned road-widening projects will be challenged by pedestrian advocates and transit advocates; and coalitions were built that can work together in the future for a more livable city.

Important Lessons **for** **Effective** Advocacy

1. Use governmental review and approval processes. Many states have public review procedures. The process may be complicated and full of bureaucratic detail, but it can be a powerful tool. In this case advocates took advantage of the official comment period in the state's environmental impact process to mount convincing opposition.

2. Promote racial, **ethnic** and economic **equity**. Point out clear disparities between transportation plans for well-to-do neighborhoods and low-income neighborhoods. In this case, the government proposal would benefit commuters at the expense of local residents, who are predominantly lower income African-Americans.

3. **Get** help **from** expert allies. There are transportation planners, landscape architects, lawyers, and others who believe in what you're doing and can help you. The transportation planner who worked with the Ruggles coalition spoke the same professional language as the city's highway engineers and had the necessary expertise to help the community to create an alternative plan.

4. Present alternatives. Formulating and presenting an alternative gives your community group credibility and makes a beneficial compromise possible.

Chapter 5

Busy Streets and Pedestrian Access to Transit

A streetcar line runs 2.7 miles down the median of Beacon Street, the main thoroughfare of the urban town of Brookline, Massachusetts. Over a seven-year period, seven people were struck and killed by automobiles as they crossed Beacon Street to reach the streetcar. This report describes how resident advocates persuaded town officials to install a WALK light where the first fatality occurred. They continued to make their voices heard, and years later when the street was redesigned, a role for these advocates in the planning process was assured. Thanks to them, specific design features described in this chapter were added to make pedestrian access to the streetcar as safe as possible.

The **Beacon** Streetcar Line

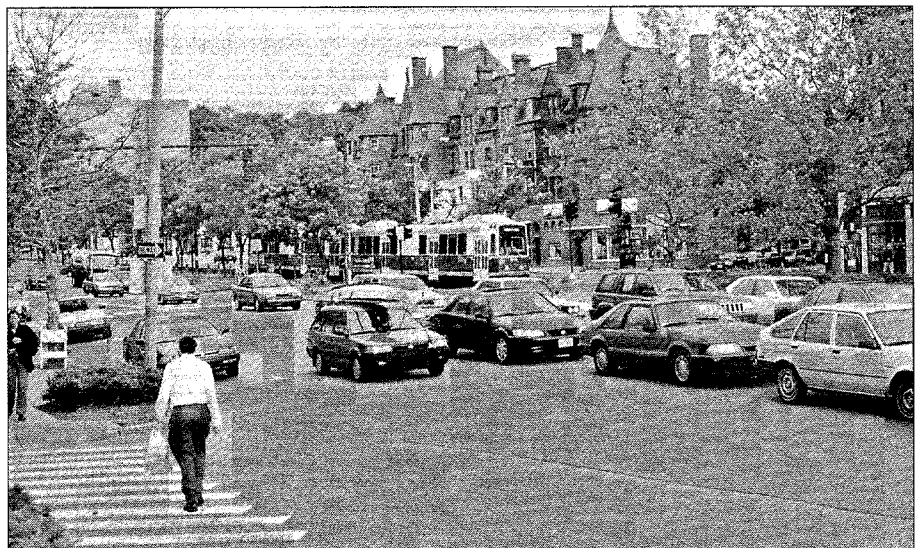
The Beacon Street light rail line runs from downtown Boston through the northern portion of Brookline, an inner suburb of the city. The Boston segment is underground; as the line enters Brookline the tracks

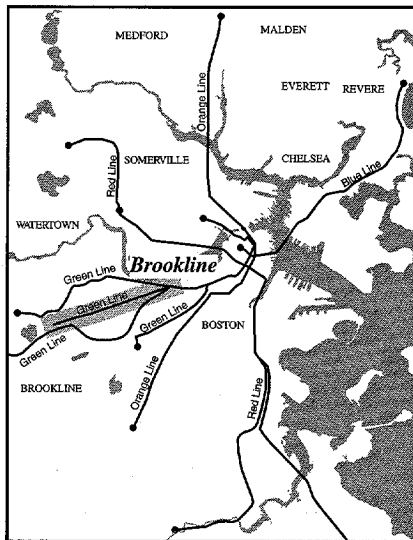
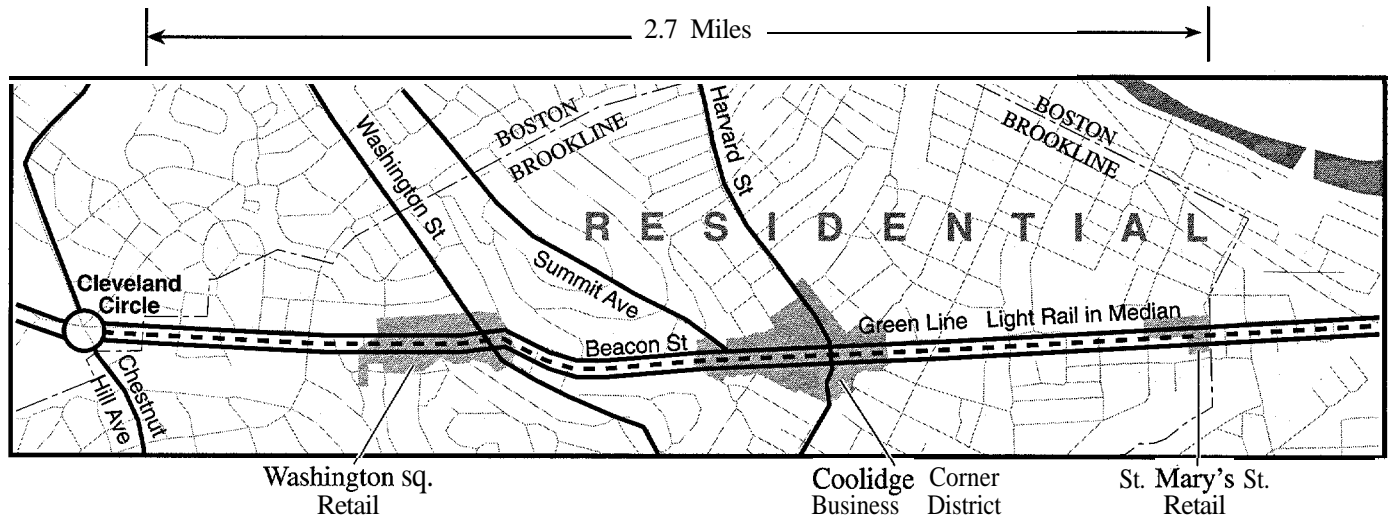


come up to grade (ground level) and run down the median of the four- to six-lane street. This stretch of Beacon Street traverses the heart of Brookline, where three- to six-story buildings comprise multi-family housing, commercial centers (including the town's major retail area) and numerous doctors' and dentists' offices.

The streetcar is heavily used. Commuters

Beacon Street is a community street. Pedestrians, streetcars, and moving and parked cars are part of the street's vital mix.





Brookline is an inner suburb of Boston. It is serviced by three branches of Boston's light rail Green Line. The middle of the branches shown here is the Beacon Street branch.

ride it to Boston's financial and government centers. Students take it to the area's many colleges and universities, Tourists board the line as they head to small hotels and bed-and-breakfasts sited along Beacon Street. And, finally, local residents use it to get to coffee shops, fruit and vegetable markets, video stores, the library and the post office. On a daily basis, over 25,000 trips are taken on this surface segment of the Beacon Street line.

Crossing Beacon Street to reach one of the line's 13 surface stops can be difficult and dangerous. At many of the stops pedestrians do not have the protection of a WALK light, but have to wait for a gap in the traffic before crossing the street.

Short-Term Advocacy: A WALK Light

The installation of a pedestrian WALK light is often the single most effective step an advocacy group can take to improve pedestrian safety. In the fall of 1987 an older woman was struck and killed as she and her husband left a doctor's office and attempted to cross Beacon Street to the streetcar. Like the other passengers who board and disembark-2,000 times a day at this stop on the edge of a busy retail center-the couple had to wait for a break in the vehicular traffic and cross unprotected by a WALK light.

Residents promptly responded to the fatality by petitioning Brookline Town Meeting, the local legislative body of 260 elected members, for

Continued on page 34.

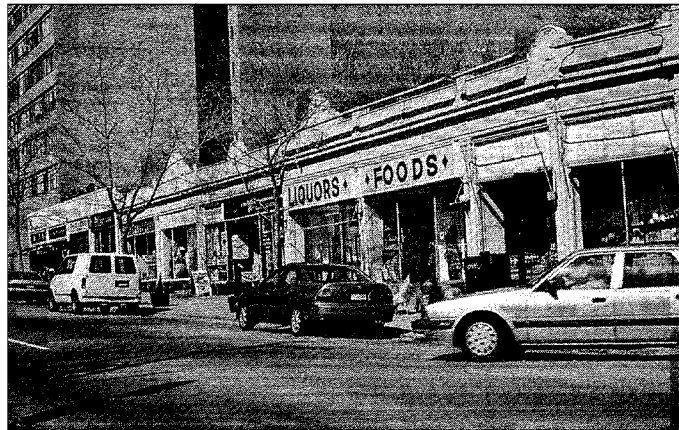


“

I am feeling torn. I am a community representative on a committee that's redesigning the street I live on, the busy main street of my town. Neighborhood residents have asked traffic engineers to redesign an intersection where cramped space and a confusing U-turn currently make walking, driving, and using the streetcar — which runs down the median strip — unsafe. The new plan creates safe crosswalks and provides transit passengers with boarding platforms that give them 8, not 4, feet of distance from moving automobiles. I have been pushing for this last change for months.

But these improvements will mean the loss of six parking spaces directly in front of four small shops. I have just told the town's project manager for the redesign project that these merchants should be notified. I see the discouraged look on his face. He is conscientious, but the redesign of the street is 95% completed and 95% accepted; he is reluctant to open it up to new objections. The entire redesign could possibly be derailed. His boss, the director of the town's transportation department, is even more hesitant to make the loss of these parking spaces public.

As a neighborhood representative, I am



Neighborhood shops on Beacon Street which faced the loss of six parking spaces, directly in front of their shops. Most of the shop owners were immigrants and unaware that Beacon street was being redesigned.

supposed to be concerned with the interests of everyone, including the merchants. After all, these small stores contribute immeasurably to the livability of our neighborhood. But most of these merchants are not involved in community politics. The owner of the Russian deli has only been in the country for a few years. The owner of the overstuffed corner grocery is from Italy. A woman from the West Indies runs the manicurist shop. Most of the staff of the Thai video store do not speak much English. I take a set of drawings of the new street design to the only native I know, my dry cleaner.

I mention the redesign, which the local

newspaper has covered extensively, but he knows nothing about it. He lives out of town. I explain the plan and the loss of parking. He is upset and will not look at the drawings. He shouts at me. I have become The Town. I am one of THEM, who are trying to put him out of business. When he calms down, I offer to set up a meeting between the merchants

and the town's transportation department.

I call the project manager. His boss has relented, and the merchants will be invited to the next meeting of the redesign committee. I'm glad, but also anxious about the outcome. Conflict and community process are sometimes the same thing.

”

"I don't want this WALK light to be funded just for the sake of the elderly. I have run to catch this train numerous times and taken my life in my hands as I tried to cross Beacon Street...I don't want to have to wait two minutes for a break in traffic."

-Statement made at Brookline Town Meeting

a WALK light. One of the advocates had friends in Town Meeting who said that the financial committee was balking at the prospect of appropriating the necessary \$60,000. Advocates organized a telephone brigade to call their Town Meeting members to ask for support.

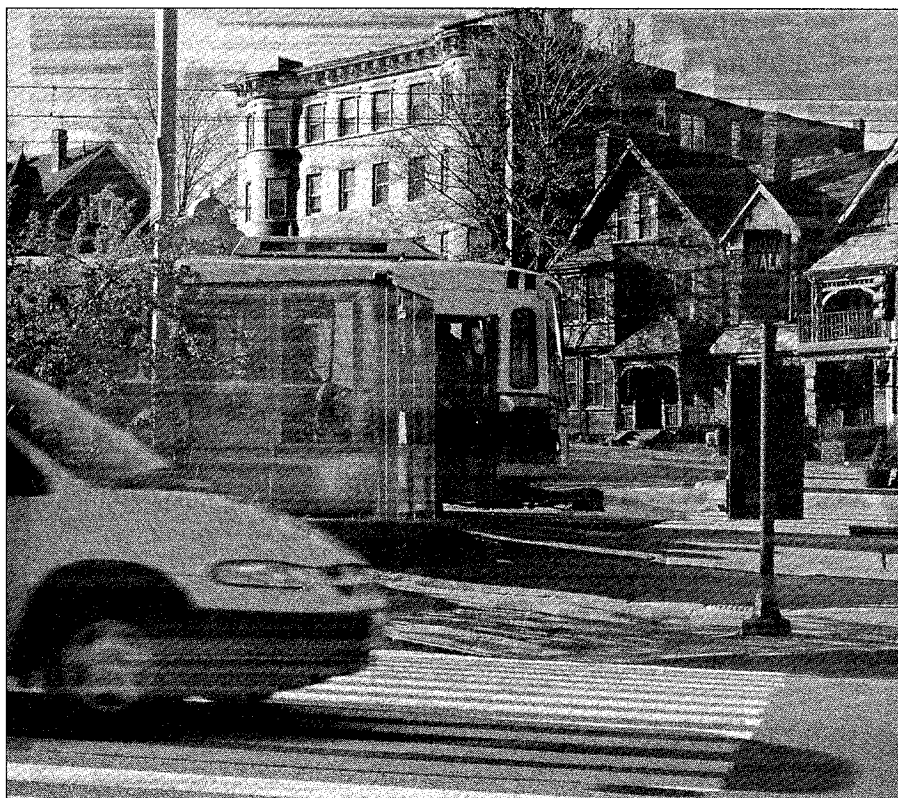


When the issue of funding the light came up during town meeting, the members from the neighborhood in which the fatality occurred emphasized that the light would protect not just the elderly but everyone who boarded at this stop. The many impassioned speeches persuaded the town meeting to vote to fund the light.

Long-Term Advocacy: Redesign **of** Beacon Street

While pedestrian safety was enhanced at the location of the fatality, many streetcar stops remained where passengers had to cross the street, usually at intersections, with no protection from any sort of traffic light. In the next six years, seven more people were killed crossing Beacon Street. The last fatality, in 1994, was another pedestrian crossing to the streetcar at an unsignalized stop.

This WALK light was installed to help pedestrians safely cross Beacon Street to reach the streetcar which runs along the street's median. Before the traffic light was installed, pedestrians had to cross without the protection of a WALK light.



Fatalities on Beacon Street

10/16/87

Beacon & Marion Streets
74-year-old female, 3:50 in
afternoon.

6/20/88

1330 Beacon Street
74-year-old, 12 noon

1/25/90

1758 Beacon Street
male, 11:55 pm

12/30/90

Beacon & Charles
man hit by car

11/91

Location unknown or
undocumented
hit and run pedestrian fatality
in early hours of the morning.

9/21/92

Beacon & St. Paul
60-year-old woman hit by car

9/21/94

Beacon & Williston
woman hit by car, 7:20 am
One driver stopped, another
driver got impatient and went
around the stopped car.

12/24/94

Beacon & St. Paul
man hit by streetcar

When the victim's neighbors demanded action, they learned that the town was planning to redesign Beacon Street. The state highway department had agreed to provide 90% of the funding to replace the street's failing old traffic lights, but had required that the town address the street's high pedestrian and vehicular accident rate. After all, local people were calling Beacon Street a death zone, and the problems of crossing it had been highlighted in the local paper. In addition to the danger to pedestrians trying to reach the streetcar, vehicle drivers faced unsafe conditions when they crossed the streetcar tracks at unsignalized intersections or backed out into lanes of moving traffic from the hundreds of angle parking spaces located along the median; the street saw approximately 200 vehicle accidents each year.

The Redesign Process

Brookline commonly delegates a considerable amount of authori-



Twenty people on the Beacon Street Committee went out to see first-hand what needed to be done to improve safety and transit access.

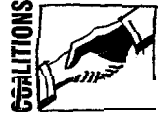
ty to volunteer boards. The town established a Beacon Street Committee comprising 20 persons who represented neighborhoods and volunteer civic committees (such as the Planning Board, the Conservation Commission, the Chamber of Commerce, and the Transportation Board). This group, rather than the town's transportation department, met every two weeks to discuss and vote on the various aspects of the street's redesign.

Without being asked, town officials reserved a seat on the committee for a pedestrian safety advocate. To long-time activists in the community, this event represented a change in official attitudes that can happen only when advocates have been heard over time. Similarly, the town's traffic



consultant for the redesign project had in recent years become a convert from automobile-centered engineering to a more balanced approach that included transit, foot and bicycle.

The presence of pedestrian advocates on the committee guaranteed that their concerns were addressed. Together with environmental advocates, they took up the cause of transit riders. Planning for Pedestrians and their access to transit is not widely practiced in the United States, and often even professionals are unsure of what makes for a pedestrian-friendly design. Hence the presence of environmental/pedestrian/transit advocates on the committee was crucial.



"The important thing is safety, not how fit cars can go."
-Advocate at a neighborhood association meeting

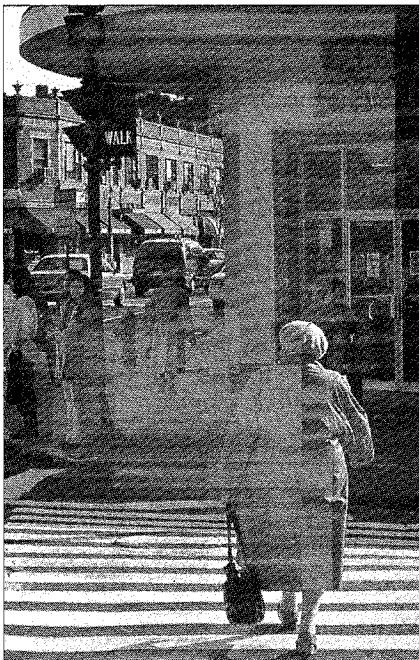
Safe Access to The Streetcar

In the fall of 1997, the committee had completed the basic design for Beacon Street. Key features of safe pedestrian access to transit are shown in the accompanying figure and detailed below.

Narrowing of Beacon Street to two travel lanes in each direction plus parking lanes — The width of Beacon Street, like that of many older thoroughfares, varies considerably. Several segments have four travel lanes in one direction, while other segments have only two travel lanes in each direction. The new design limits travel lanes to two in each direction, with an additional left-hand turning lane at some intersections.

WALK lights -The design calls for five new signal lights, all equipped with WALK cycles; four of them will be at locations where passengers cross Beacon Street to reach a transit stop. These additional lights will bring the total number of signal lights to sixteen, or roughly one signal light every 1/6 mile.

Increased tree plantings — Cars slow down on narrow streets. Trees growing along the street produce the visual effect of narrowing it, making traffic slower and safer. The redesign calls for planting of new trees and replacement of unhealthy ones. Trees will also be planted on bulbouts which are strategically interspersed along the angle parking to break up the long lines of parked cars and reduce the width of the street visually.



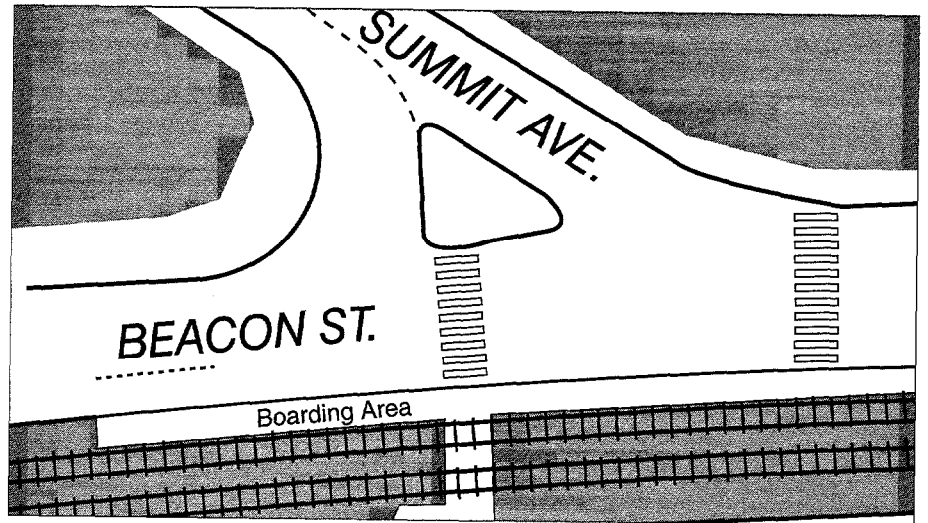
Five new WALK lights will be installed along Beacon Street to help passengers safely reach the streetcar.

Increased separation between passenger boarding areas and moving traffic — At least one streetcar stop has a boarding area which is too narrow, forcing passengers to board and alight dangerously close to moving lanes of traffic. This boarding area is going to be widened by 4 feet.

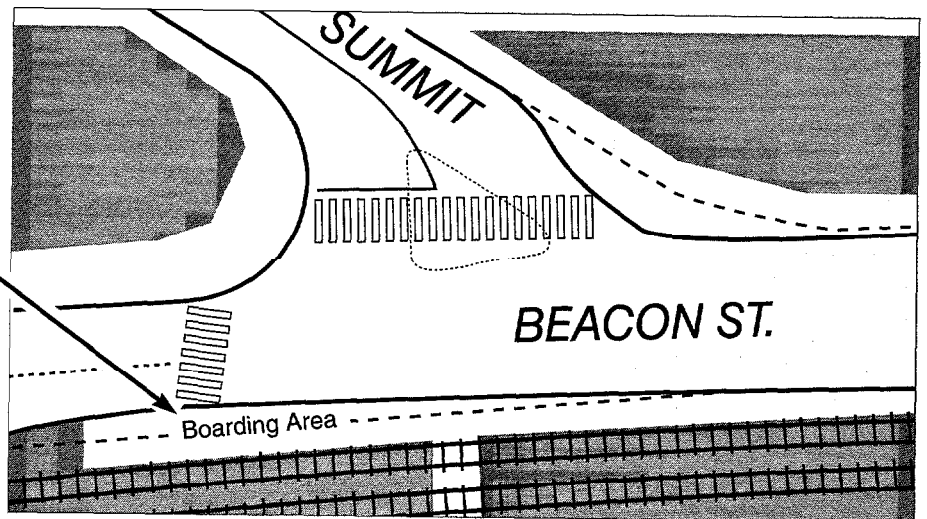


Passengers step off streetcars onto a *very* narrow area. *They* are nearly pushed into moving *traffic*.

This boarding area will be widened, from 4 to 8 feet for improved passenger *safety*. In addition, the *turning* radius of one corner will be tightened to reduce the speed of *turning* traffic, and the distances for pedestrians crossing **Summit** Avenue and Beacon Street will be *shorter*.



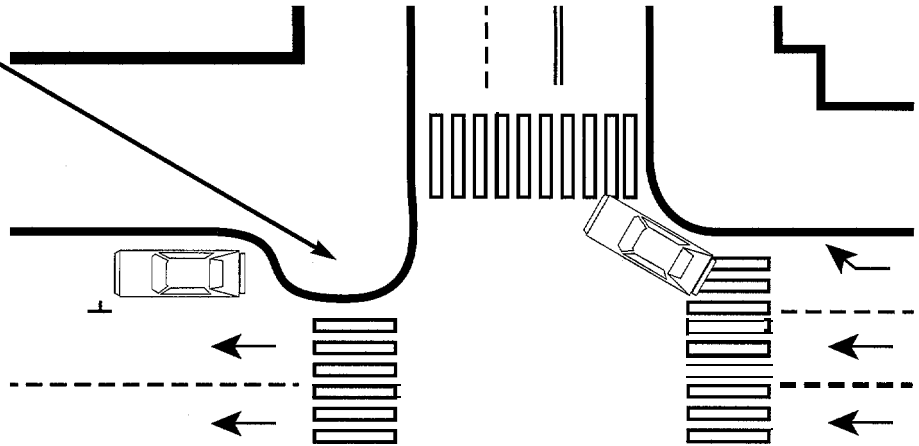
Before



After

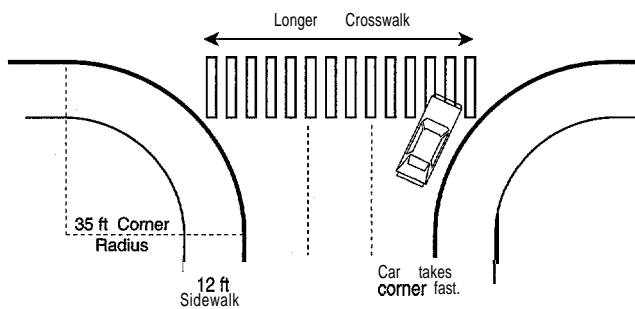
Curb extensions at many street corners — Curb extensions (also called “bulbouts”) at street corners slow down turning vehicles, reduce the widths of crosswalks, make pedestrians more visible to drivers, and make traffic more visible to pedestrians. They make crossing streets like Beacon much safer for transit passengers. Several are being placed along Beacon Street.

*Curb extension
(also called *neckdown* or
bulbout).*

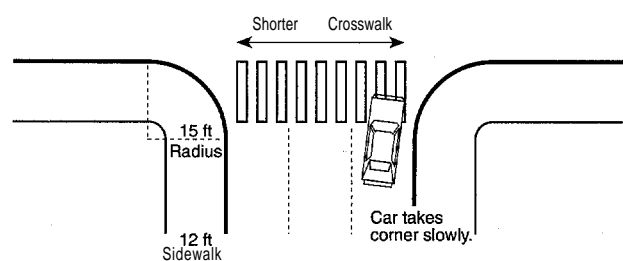


Tight curb radii on street corners cause turning cars to slow down. Tight curb radii also reduce the width of crosswalks.

Tighter curb radii — Cars which are able to make fast turns around street corners are a hazard for pedestrians. The most effective method of slowing turning vehicles is to tighten curb radii, forcing cars to make sharp turns rather than wide, sweeping ones.



Wide Corner Radius



Tight Corner Radius

Resolving **Conflict**

Though they were generally successful, advocates accepted compromises in order to ensure community acceptance of the overall plan. These compromises included widening the street at some intersections to provide space for left-hand turns.

A major problem throughout the Beacon Street corridor was the lack of space to meet so many needs. Every day the street sees 320 streetcar runs and 28,000 moving automobiles, many of them seeking parking spots in shopping areas. Thousands of pedestrians walk on Beacon Street's continuous sidewalks and make numerous street crossings.

The space problem was particularly acute along the block described in the personal vignette on page 33. Pedestrians had poor WALK light protection. A U-turn, which also enabled drivers to turn left, was very badly marked. The boarding platform for the streetcar was far too narrow. A small retail area drew pedestrians and automobiles. At neighborhood meetings, residents pleaded for a design that would make it easier and safer for everyone to move at this location.

The redesign called for doubled platform width, a signalized intersection with marked crosswalks, and a signalized left-hand turning lane. The Beacon Street Committee, especially advocates for pedestrians and transit, were delighted. But when the merchants were told that the plan would eliminate six parking spaces directly in front of their shops, they argued that their survival depended upon the availability of adjacent park-

ing. The compromise they favored, reducing sidewalk space to preserve the parking spaces, was challenged by pedestrian advocates, who ultimately lost in a vote by the committee. The advocates for pedestrians and transit decided to let the matter rest: overall, the Beacon Street plan was a huge improvement, transit users would be safe, and it would be foolish to hold the plan hostage for a few feet of sidewalk space, however cramped that block might look.

Because residents can reach this commercial area by streetcar, it has retained its traditional compact character which draws residents and visitors alike.



important Lessons for Effective Advocacy

1. **Stress Safety.** Serious injuries or fatalities can be potent catalysts for change. Public officials will never be as receptive to change as in the first couple of weeks after a tragedy.

2 **Don't** give up. Your constant presence and participation over the years (not just weeks or months) will ensure that your views will become part of a growing consensus: new attitudes that favor improved access to transit, pedestrian safety and livable communities.

3. Be willing to compromise. Groups of people will inevitably find that they have conflicting interests. In this case study, widening the streetcar platform meant the loss of either parking spaces or sidewalk width. Advocates must perform a balancing act, and the result is usually compromise. It is often better to get 75% of what you want than to hold out for 100% and risk jeopardizing the entire project.

Chapter 6

The Neighborhood Bus Stop Program: launching an Advocacy Project

The other case studies in this report deal with the ways advocates have reacted to an isolated problem (e.g., pedestrian fatalities on Beacon Street) or to projects initiated by government or public agencies (e.g., the Southwest Corridor and the threatened widening of Ruggles Street). This chapter deals with a proactive effort on the part of WalkBoston to improve access to buses and thus increase bus ridership.

WalkBoston made a conscious decision not to address bus routing or scheduling. Although they are critical, these aspects of bus service can take years to resolve. A project that produces quick, highly visible improvements has a better chance of rallying community support.

Little attention has been paid to Boston's bus stops in the past 20 years, despite the heavy reliance on bus service in low-income communities. Many bus stops are in poor condition. Studies indicate that a good environment for access to public transit-pleasant walking conditions, wide side-

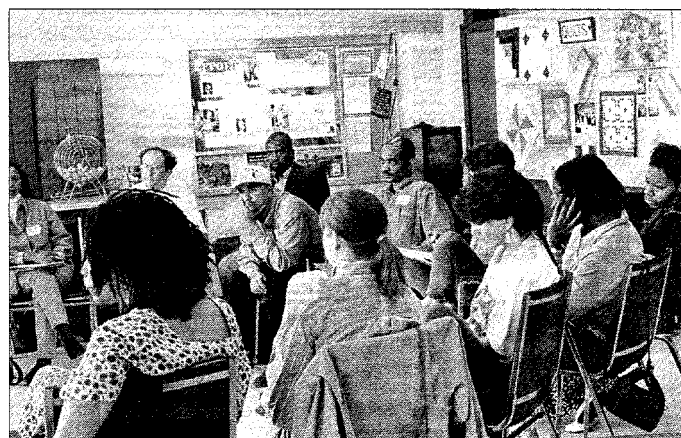
“

We are sitting in a meeting led by teenagers. They are setting the agenda and providing the food. The table is piled high with

chips and cookies.

I am representing WalkBoston in a coalition of neighborhood environmental and transportation groups. Our goal is to increase the transportation available to teenagers living in Roxbury, a neighborhood of African-Americans and Latinos.

The young man leading the meeting asks us to name one good and one bad thing about the transportation we use. The responses of



Youth discuss ways of increasing transportation choices in Roxbury, where most people take buses.

adults and teens are similar. What is good is that you can get almost anywhere on the transit system's bus and train routes. What is bad is the long wait at the bus stops, the lack of shelter from

wind and rain, and the almost complete lack of bus schedule information. Passengers who depend on transit have no idea of when the bus will come or what connections it will make. Not one of the nearly 20 people sitting at the table talks about driving a car. Auto ownership in the neighborhood, per household, is

less than 50%. For these youth, bus service is an everyday affair.

”

Facts and Figures on BUS Service in Greater Boston

Bus passengers: 1.85 million per week. Bus passengers comprise 40% of all transit passengers, more than any other transit mode

Number of bus routes: 161

Number of bus stops: 8,000

Number of bus shelters: 500

Many bus stops serve more than one bus route. At some stops 400 - 800 passengers board buses each day,

Source: Central Transportation Planning Staff, Boston Metropolitan Planning Organization.

walks, safe street crossings, good lighting, informative signs, new bus shelters, benches and landscaping- can result in a 4% to 6% increase in ridership. Well-designed and maintained bus stops contribute to neighborhood quality while improving bus operations. For these reasons, WalkBoston recently decided to launch an advocacy effort that we hope will eventually improve all of greater Boston's bus stops. We call it the Neighborhood Bus Stop Program.

Developing a Demonstration Project

No public agency will commit to a large project like this without hard evidence that the project is feasible, cost-effective, and does what it is supposed to do. So WalkBoston decided to propose a small demonstration project to improve bus stops in one area of the city. It is reasonable to hope that the Massachusetts Bay Transportation Authority (MBTA) will approve the demonstration project, which will become the first step towards the full Neighborhood Bus Stop Program. WalkBoston believes the bus stop program could later be applied to bus routes throughout the metropolitan Boston area.

Choosing a Location

WalkBoston chose the Roxbury/Dorchester section of Boston for the Neighborhood Bus Stop demonstration project because of this community's heavy dependence on buses. Six of the ten metropolitan Boston bus

A typical Boston-area bus stop with no shelter or route sign.



*Roxbury and Dorchester are
"the most **transportation** dependent
communities in the city...*

*At some point you've got to start
treating your best customers tight."*

*— Marvin Martin,
Washington Street Corridor Coalition.*

routes with the largest number of passengers are in this and adjacent low-income communities of color. WalkBoston expects that the particular bus stops to be included in the demonstration project will be selected by community organizations in Roxbury and Dorchester.

While the demonstration project is proposed for Roxbury/Dorchester, WalkBoston believes the bus stop program could be applied to bus routes throughout the metropolitan Boston area.

Seizing Opportunities

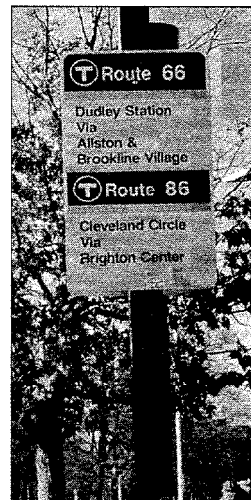
Timing is crucial in successful advocacy. In the spring of 1998, WalkBoston realized that several factors made this the right time to advocate for better neighborhood bus stops.

Political climate — The political situation is auspicious. The MBTA is becoming more receptive to the concerns of the African-American community. Recently the Boston Chapter of the National Association for the Advancement of Colored People criticized the MBTA for not holding hearings in African-American communities about proposed cutbacks in bus service, prompting transit officials to schedule additional public hearings in Roxbury and Dorchester. Also, an African-American general manager was recently appointed to head the MBTA. A long-term employee of the transit system and a former bus driver, he is committed to using transit to enhance communities. Furthermore, the city of Boston appears to be interested in MBTA bus shelters. This is good news, since any plan will need the city's support.

Public complaints about the lack of good bus signage —

Signage: (n.) signs in a given area;
planners lingo for "signs"

*Most bus stops have only a T sign,
like the one shown on the left. The
bus sign on the right, showing
routes and destinations, is very
rare.*



In November and December of 1997, the MBTA held public hearings in several neighborhoods on bus service. At these hearings, bus passengers complained about the lack of route signs and schedules at bus stops. The typical bus stop has only "T" signs indicating that that sidewalk location is served by a bus. Rarely

MBTA Criteria
For placement **of**
bus shelters:

1. Minimum of 100 passenger boardings a day at the bus stop
2. Concrete sidewalks that are at least 9 feet wide (to accommodate wheelchairs)
3. Acceptability to abutters. For example, for a shelter to be placed on a sidewalk in front of a house or store, the MBTA must obtain the permission of the property owner.

are bus route numbers, schedules or destinations posted.

Passengers said that having better information, especially about the connecting points of bus routes, was crucial to getting around.

MBTA's decision to order new bus shelters

In the spring of 1998, the MBTA depleted its supply of shelters for bus and light rail stations. To cover the cost and maintenance of new shelters, the MBTA is planning a program of bus shelter privatization. Private corporations and institutions will pay the cost of purchasing and maintaining bus shelters in exchange for placing advertising on them.

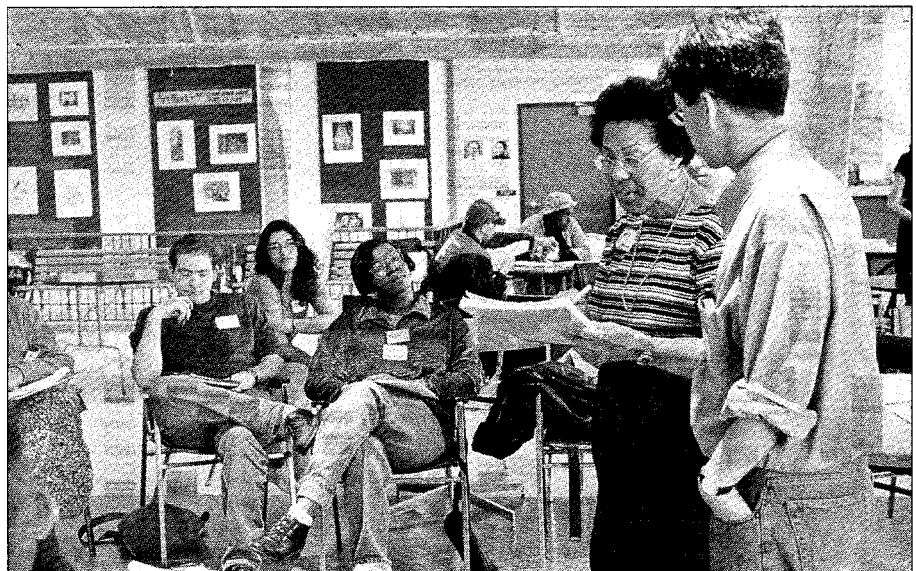
Opportunity for community involvement — WalkBoston is currently working with a coalition of established neighborhood groups in Roxbury. That project, dedicated to expanding transportation choices available to teenagers, provides WalkBoston with a neighborhood base to work with while implementing the demonstration project for the Neighborhood Bus Stop Program.



Community involvement is key to any bus stop program. The Los Angeles Neighborhood Initiative (LANI) has successfully used bus stops as a focus for commercial revitalization. Thanks to programs such as youth art on shelters, nearby residents feel as if they own the bus stops. With community groups responsible for developing a maintenance plan, vandalism of bus signs and shelters has been substantially reduced. WalkBoston looks to Los Angeles as a successful model.



At community meetings many people express concern-s about transportation and its effects on neighborhood life.

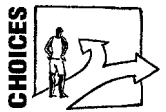




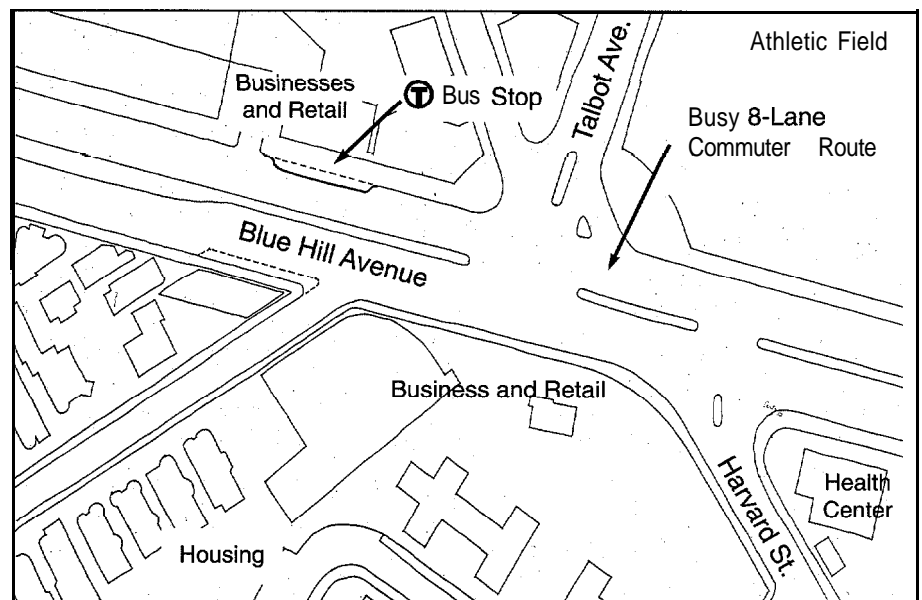
At this bus stop near a busy intersection, 475 passengers board buses each day. Yet no shelter or route information or schedules are provided.

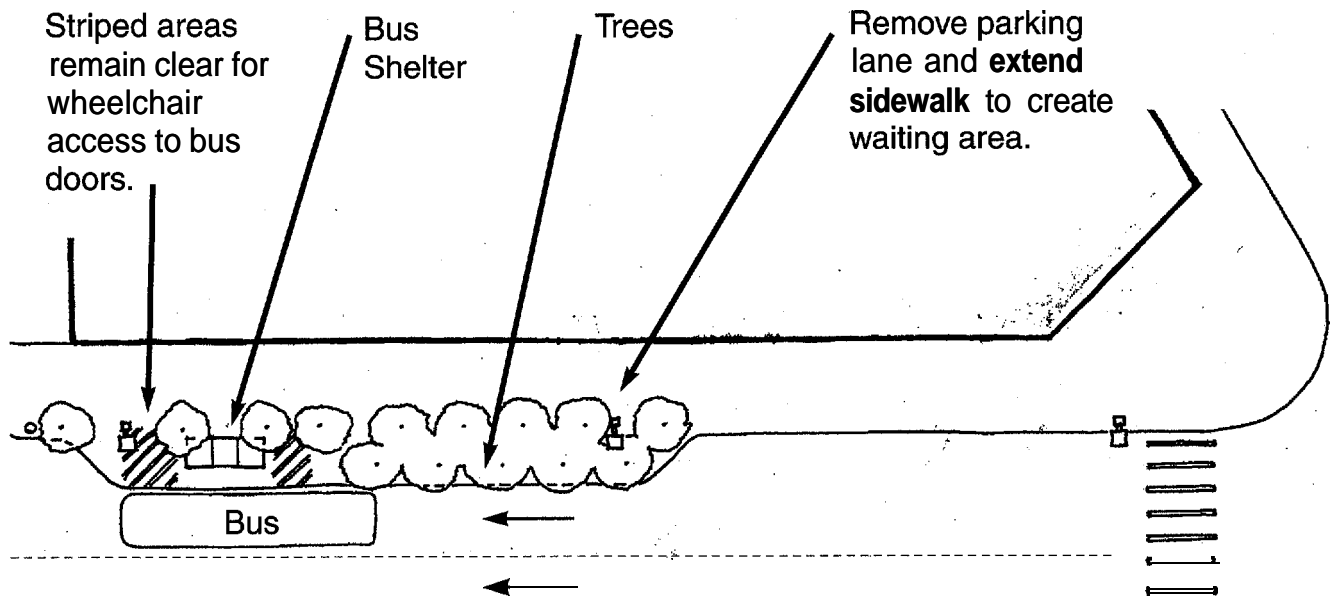
Developing a Model Bus Stop

When advocating, it is best to be as specific as possible, and a picture is worth more than a thousand words. To demonstrate our vision for neighborhood bus stops to the community and the MBTA, WalkBoston has selected a particular bus stop in Dorchester and will make specific recommendations for it.



This bus stop, typical of the area, serves three bus routes that run through dense urban neighborhoods where the stops are close together. It is located near a five-way intersection, on a 97-foot-wide, g-lane, heavily trafficked arterial street which serves as a commuter route between the suburbs and downtown. The adjacent sidewalk is 15 feet wide. Nearby are many





small stores, restaurants, and auto body shops, two public schools, a neighborhood health center, fairly dense housing and a large sports field. On a typical weekday about 475 passengers board buses at this stop.

WalkBoston will make five major recommendations for the bus stop.

1. Leave the bus stop at its current location.

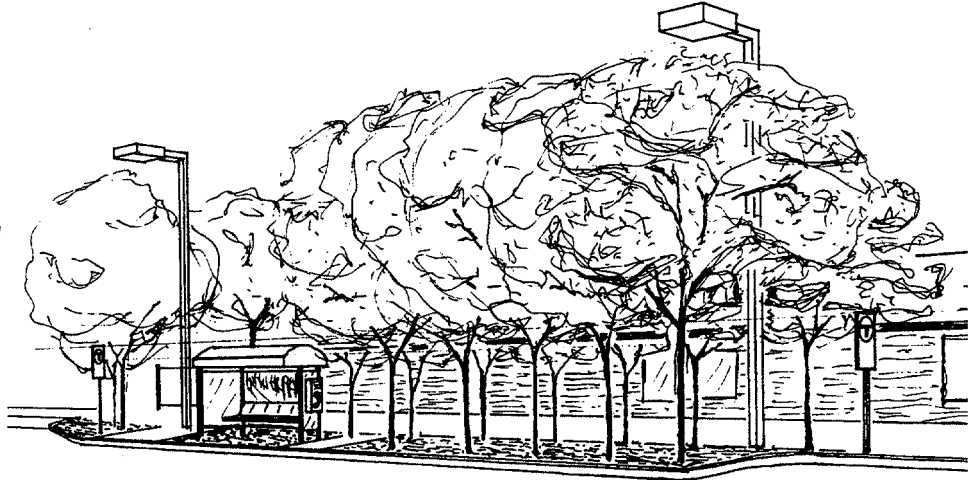
The current bus stop is well located—far enough from the busy intersection so that the bus does not block visibility of pedestrians at the street crossing, yet close enough to the signalized intersection to make it likely pedestrians will cross there, rather than jaywalk (especially if traffic signals are retimed for their convenience).

2. Extend sidewalk to provide a waiting and an improved boarding area.

In our proposal, the sidewalk will extend out from its current edge to the edge of the through travel lane, about 8 – 9 feet. The extension will be 75 feet long, the length of the current bus stop.

This sidewalk extension (also called a “curb extension”) will help bus operators, automobile drivers, and transit passengers. Transit operators will find that 1) passengers will be clearly visible from the street, and 2) the bus will be able to pull right up to the curb and not have to wait while passengers thread their way between illegally parked cars to the bus door.

On these pages are two views of the proposed model bus stop. The drawing on this page shows the bus shelter, with display space for schedule and route *information*, and a telephone. The bus stop would also have lighting, benches and trees.



Consequently, the time spent at stops will be briefer and route times faster.

For passengers, stepping into and out of a bus pulled up to the curb will be easier and quicker. Bus steps are designed with the assumption that the first step is from a 6-inch-high curb. When a bus cannot pull up to the curb, boarding or alighting passengers must take a long step—a time-consuming and hazardous operation for the elderly or infirm. Wheelchair access — now slow, inefficient and dangerous out in the street—will be made convenient.

Cars parked illegally in the bus stop and double parked mean that buses have to stop out in *traffic*. Passengers *make* their way out to the bus as best they can.

WalkBoston is aware that traffic engineers are likely to object to this sidewalk extension, which will block through traffic in the right-hand lane. We will argue that the recommended curb extension will not negatively impact traffic flow, since illegally parked cars currently force buses to stop in travel lanes anyway. The road is wider than is required for traffic, and will



easily accommodate the sidewalk extension. In fact, the visible curb extension will alert automobile drivers to the upcoming bus stop, so that they will be able to anticipate changing lanes. Drivers will have even more advance warning if permanent pavement markings are added before the stop. A similar bus stop curb extension already exists in a business district along this bus route and seems to work well.

Perhaps most important, converting excess road width to an attractive waiting and boarding area for public transit passengers will

send an important message about the high priority of high quality bus service.

Small businesses may fear that bus stops on sidewalk extensions will take parking spaces. However, there is currently no legal parking at bus stops, including the one being discussed.

3. Add seating, a bus shelter, trees and landscaping.

The proposed extension will create an opportunity to provide amenities for riders that will enhance the neighborhood as a whole.

Shelter — For such a busy bus stop, WalkBoston will recommend a covered shelter, containing a bench and schedule and route information. Here passengers will be able to wait away from the active sidewalk in a pleasant, comfortable place. The shelter will provide protection from bad weather and enhance safety because it will be clearly visible from the sidewalk and street. The shelter will be placed at the back edge of the sidewalk extension, out of the sidewalk right-of-way. This placement will allow a 5- x 8-foot landing area for wheelchairs. There will also be room in the shelter for wheelchair users.

The transit system now has few benches and only about 500 shelters for 8,000 stops. The shelter style now used is Plexiglas, 12 feet long by 4.5 feet deep. It is enclosed on three sides, with two openings at the front. It can be too bulky for narrow sidewalks.

WalkBoston will recommend instead a type of shelter found in San Francisco which is flexible in depth and width and is visually less obtrusive. This shelter installation can consist of just a back wall, bench and roof,

A bus shelter placed on a sidewalk extension gives passengers a pleasant place to wait without blocking the sidewalk.



or it can have full or half sidewalls, depending on the available sidewalk space. It is glass, with telephones and posted schedule and route information. Advertisements are either on the back or the far end, so the passenger's view of the bus is not blocked. These San Francisco shelters were provided by a privately owned company, in exchange for advertising on the shelter. The contractor installs and maintains them and replaces the glass.

WalkBoston will point out the wide variety of bus shelter designs, including those that have roofs but no or only partial sides. Community groups should be able to advocate for the designs that best meet their needs.

Seating — WalkBoston will recommend slatted wooden benches with backs, bolted down (a style currently used elsewhere in the MBTA system) and placed as far as possible from passing traffic. Benches like this will provide a warm seat and will be easy to replace when necessary. To minimize the space taken by seating and to discourage loitering, some transit authorities use flip-up seats which are vertical when no one is sitting on them.

Landscaping — For this location WalkBoston will recommend planting several city-hardy trees with straight trunks which will provide shade cover without obscuring the view into and from the shelter. Planters for seasonal flowers may be added, if neighboring stores will commit to planting and maintaining them. If the planters cease to be maintained, they will be removed. Landscaping installations will be flush with the ground, so passengers will be able to stand and walk on them.

Lighting — The current stop, and the proposed sidewalk extension, are between two street lights which already provide good lighting essential for passenger security. If shelters with advertising are chosen, additional lighting will be provided in the ceiling.

4. Add signage and schedules.

Route signs, schedules, and bus maps showing transfer locations will be an integral part of the demonstration bus stop. The current lack of signage at MBTA bus stops discourages all but the most adventurous riders from trying new routes or taking the bus to a new destination. Signs and schedules will provide useful information and will also serve as marketing tools for the transit service.

Our demonstration bus stop will have the transit authority's logo

"If you put information in only one place, put it at the bus stop."
-Quotation from meeting of transit officials on the west coast

to indicate that it is a bus stop. Large, bold letters and numbers will also identify the bus routes which serve the stop. This information will be high off the ground (probably 7 feet) in order to be read from a distance. Signs will have to be easy to maintain and relatively vandal proof.

Because bus schedule information does not need to be read from far away, we will recommend placing it on poles or in shelters. It will show the destinations or terminus points of the bus lines, connections the buses will make with other bus lines and train stations, and the times buses will arrive, or at least the time interval (known as a headway) between buses. Other information such as the hours of operation and the cost of a ride may be added. Many transit agencies are beginning to experiment with paper schedules, which are inexpensive to revise and reproduce, posted in vandal-resistant holders.

5. Retime the traffic signals.

Currently signal timing at the nearest intersection is set primarily for a series of complicated vehicle movements. Pedestrians get a 7-second WALK indication only once every 100 seconds; they must cross to medians or traffic islands and wait there almost 90 seconds to finish crossing. We will recommend retiming the signals to provide more frequent crossing opportunities and longer WALK times.

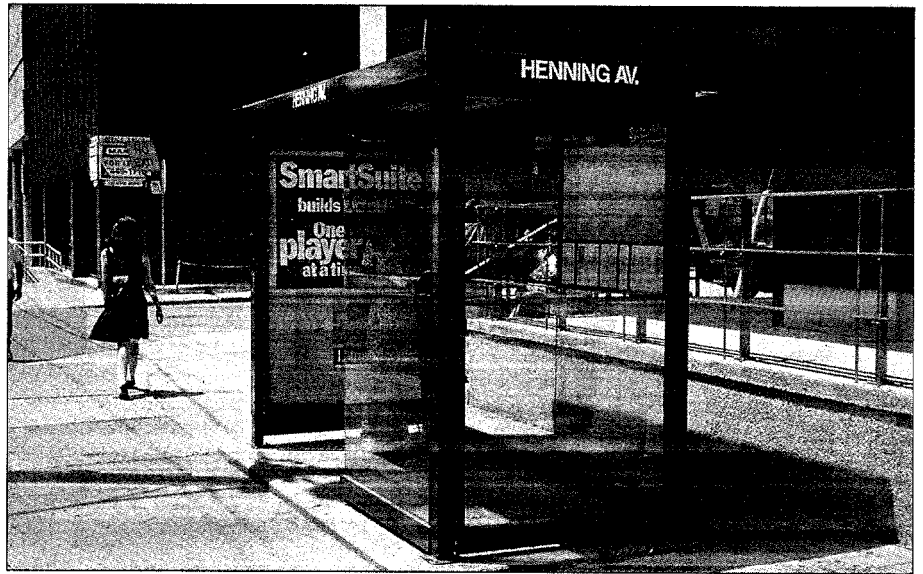
An Advocate's Implementation Strategy

Meet with Public Officials

When advocacy groups represent legitimate community groups, it is possible to get appointments with the people at the top. At the outset of its Neighborhood Bus Stop Program, before the presentation of a model bus stop was developed, WalkBoston representatives met with the general manager of the MBTA to describe our vision for the Neighborhood Bus Stop Program.

Although the general manager was receptive to WalkBoston's desire to improve bus stops, WalkBoston members came away from the meeting discouraged that they had not presented a clearer picture of their ideas. In hindsight, they realized that they had not spent enough time pre-

Advertising revenue can support the maintenance of attractive bus shelters.



viewing their strategy and making sure they agreed on their approach. As a result they had not been specific enough about the objective of the program.

Fortunately, the general manager referred WalkBoston to the MBTA's director of marketing, so WalkBoston advocates got a second chance to sell the idea of neighborhood bus stops to the MBTA. Advocates should never be embarrassed to seize an opportunity like this if they feel that they did not do a good job at their first presentation. Remember, persistence counts.

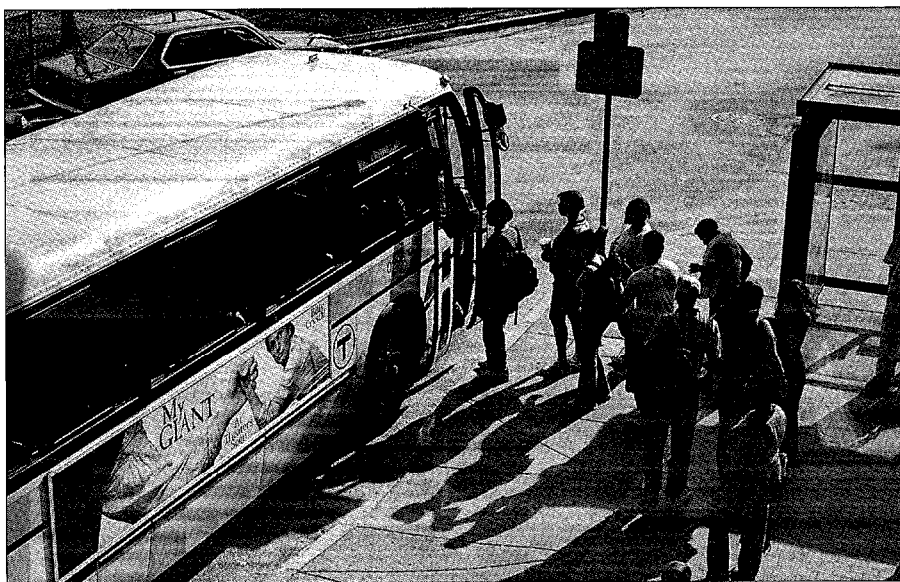


Suggest **Funding** Strategies

Nearly all transit authorities are strapped for cash, and your proposal is far more likely to go forward if you can suggest a way to pay for it. Unfortunately, strategies for funding your proposal may require a compromise of your vision. But remember, advocacy is a balancing act between the real and the ideal. Below are some suggestions for funding.

Think small: suggest a demonstration project — Using this approach, WalkBoston will suggest this demonstration project in Roxbury/Dorchester, but will urge that similar projects be undertaken in other communities. This think-small approach is often sellable, but be aware that it has a major drawback. The demonstration may never be expanded. The project which your advocacy group thinks of as the first step in a grand scheme may never go beyond the demonstration stage. If this happens, celebrate your small vie-





tory, At least one location was improved — a better outcome than endless talk and meetings for a grand vision that never materializes.

Involve major employers whose employees and customers rely on transit — In Boston a coalition of hospitals and clinics has already



banded together to provide signage and shelters at bus stops near a major medical area. In recommending the Neighborhood Bus Stop Program, WalkBoston will look to major companies and institutions whose employees and customers ride buses to work. If these companies or institutions have very little land available for parking, they will be particularly supportive of improved transit, and may even offer some funding.

Consider advertising — An approach that transit authorities in Baltimore, San Francisco, and New York City are taking, and the MBTA is considering, is to permit companies to advertise at bus and train stops. Contracting out shelters also relieves transit systems of the maintenance burden and provides revenue. Advertisers, however, tend to be unenthusiastic about placing advertisements in low-income communities. If the MBTA decides to pursue the privatization approach, transit advocates must ensure that low-income communities receive shelters to accommodate their high ridership. Also, transit systems have sometimes found it necessary to monitor the content of advertisements for reasons of public policy and health (prohibiting liquor and cigarette advertising) or community standards ('banning risqué ads'). If transit authorities permit advertising on bus shelters,

the advertising should be placed so that it does not unnecessarily obscure views into and from the shelter.

Meet with Neighborhood Groups

Even demonstration projects are not successful without community support. WalkBoston is currently presenting its vision of the Neighborhood Bus Stop Program to civic and advocacy groups in the Roxbury area, and their reaction so far is positive. Because WalkBoston participates in the coalition of neighborhood groups investigating transportation choices for youth, we already have contacts and credibility in the area of the demonstration project. New advocates and advocacy organizations can find the names of community civic groups and people to contact by asking the neighborhood planner at their city planning agency, by reading local newspapers, or by calling people in other advocacy organizations (environmentalists, for example) who might have suggestions. Ask around — you may find that one of your own members belongs to a local group and can introduce you.



Don't Be Intimidated by Technical Knowledge

Your suggestions may be rejected out of hand by engineers, using technical explanations. For instance, it can be complicated to retime traffic signals to provide enough time for cars and pedestrians to safely cross the entire street, but it is not impossible. Meet with the signal engineers and request an explanation of their practice and theory. Persist until you understand it. Repeat your goals until the engineers understand you. You may find that the engineers have ingrained assumptions — for example, that it is fine for walkers to wait two minutes to cross the street, but not for cars -which can and should be challenged and changed.

Be Positive as a Project Moves Along

Vision and enthusiasm sell. Constant criticisms do not. WalkBoston will try to engage city government, neighborhood groups and the MBTA as partners in a bus stop program that will build community pride, attract transit riders and make taking the bus a more enjoyable experience.

Important Lessons **for** Effective Advocacy

1. Strategize politically. If you are looking for ways to promote transit, take stock of the political situation and pick the areas where you are most likely to succeed.

2. Use models. Be as clear and concrete as possible when you explain your proposal for promoting transit. Pick a real location, and make highly specific suggestions, as we did with our model bus stop.

3. Check for consensus. In order to make a persuasive case, members of your advocacy organization — or coalition — should meet frequently to discuss and agree on common goals. Before making specific presentations or requests, those making the pitch should meet, *at least* one day before, to give yourselves time to discover and iron out any differences among you. If you wait until the day of the meeting, you may not have enough time to think through each others' approaches and resolve your differences.

Appendix A**Walkable
Communities
Pamphlet**

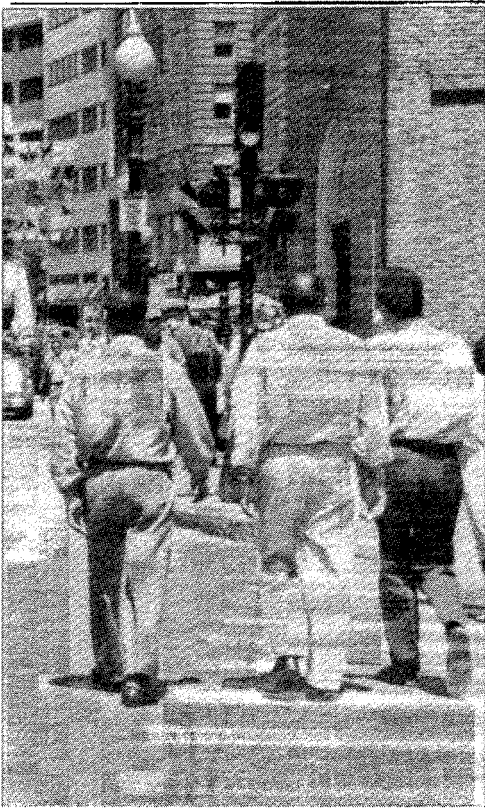
A pamphlet prepared for walking advocates by WalkBoston, with funding from the Governor's Committee on Physical Fitness and Sports, Commonwealth of Massachusetts

Walkable Communities



5 Steps
TO MAKING
YOUR **COMMUNITY**
SAFE AND
CONVENIENT FOR
PEOPLE ON FOOT

WalkBoston



*It's Friday morning 6 am. Maria looks out the window. Good enough weather to go **by** foot.*

*An hour **later** she is walking her two daughters to school. As they move along the 1/3 mile route, **the** girls run **back** and forth, at times walking on low ledges **which** line the sidewalks. **They** **easily** catch up to other parents and children and spend some time **talking** about school happenings. Maria has a moment of easy adult company. She drops **off** **her** **children** at school, then walks to **the** bus stop.*

*In the **afternoon**, when John **walks** home from the commuter rail station, he stops at **the** grocery store to buy some **fresh** fruit. Arriving home, he sees his son biking **with** some friends **on** the street.*

*This is a **typical** day in a walking **community**. People make short **distance** trips on **foot**. They encounter other **neighborhood residents**, also on **foot**, and acquire a sense of **community** that **only** such casual familiarity brings.*

What is a walkable community?

A walkable community is one where homes, shops, businesses and public transit are all within walking distance of one another, and connected by a network of safe, attractive walkways.

The traditional New England village built around its town square is the quintessential walkable community. Newer suburban towns

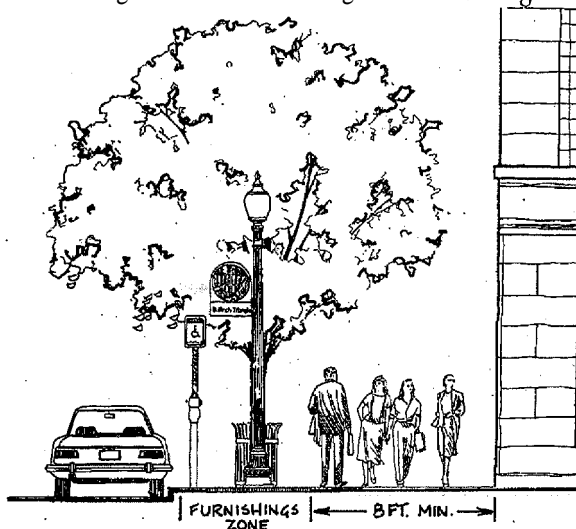
can retrofit pedestrian walks into existing town layouts and regain some of the intimacy, safety and convenience of older villages.

You can make your community more walkable. On the next pages you'll find five steps that make getting about on foot easier. As you walk, think about how these steps could improve your walking route.

Making Your Community Walkable.

Step 1 — Build and Widen Sidewalks.

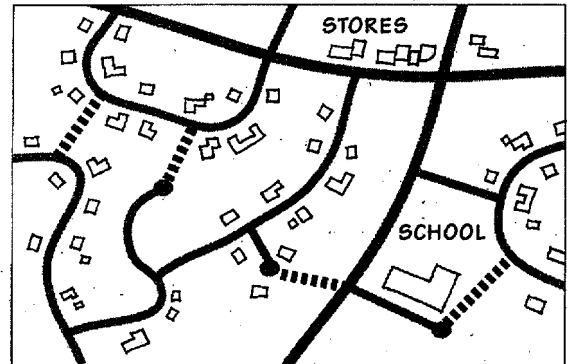
Some communities equate exclusivity with no sidewalks. The reverse is true. Communities with sidewalks have higher property values than similar communities without sidewalks. In village centers and business districts **WalkBoston** recommends a minimum usable sidewalk width of 8 feet. Sidewalk space taken up by mailboxes, street lights and trees is not good for walking.



8 feet is the minimum recommended sidewalk width in town centers.

Step 2 — Develop a Network of Footpaths.

Pedestrians want to take the most direct route to their destination. Communities can create sidewalk networks which provide walkers with many route alternatives. Especially delightful are mid-block routes. A dense network of footpaths will provide walking route continuity.



New pedestrian paths create connections.

Step 3 — Slow Vehicle Traffic.

Walkers feel most comfortable walking on streets where traffic speeds are 20 mph or less. Walkers avoid high speed streets with good reason. The majority of pedestrian fatalities occur on streets where vehicles are traveling at speeds of 35 mph or faster.

Step 4 — Narrow Streets.

The most effective way of slowing traffic for pedestrian safety is to construct narrow streets with narrow and sometimes fewer lanes. Many streets can function efficiently with one moving lane in each direction. In business districts the width of travel lanes can be as little as 10-11 feet. In residential areas a road 16 feet wide is adequate for emergency vehicles and discourages speeding.

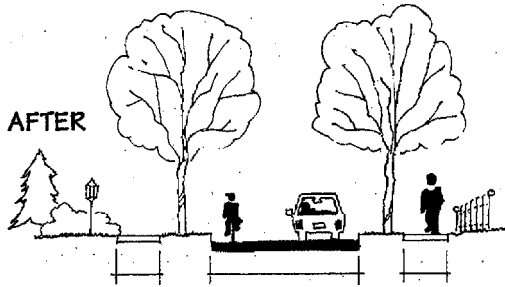
The perceived width of streets can also be narrowed by incorporating strong vertical elements along the sides of the streets. For example, mature trees, street lights and even parked cars tend to slow down drivers.

When traffic moves at steady but slow speeds, narrow streets can accommodate a large number of cars. Cars will use less fuel and pollute less.

BEFORE



AFTER

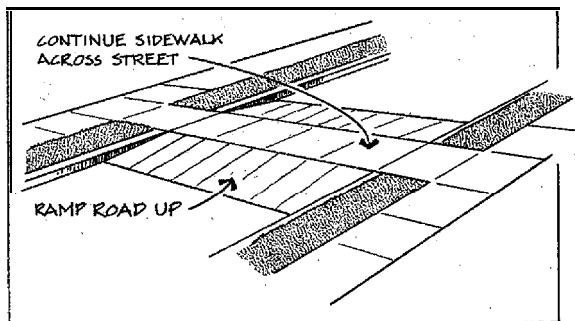


Narrow, tree-lined, residential streets slow down cars. And sidewalks encourage walking.

Step 5 — Make Intersections Safe for Walkers.

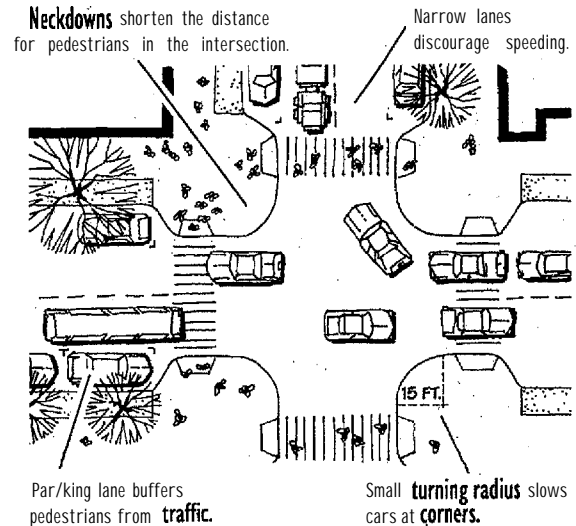
Most pedestrian 'accidents occur at intersections. This is because most intersections are designed to move cars, not people. Pedestrian-friendly intersections have the following features:

- "Neck downs" or "bulb outs" make walkers visible and reduce the time they are in the intersection.
- Small corner turning radii slow the speed of turning vehicles.



Raised crosswalks provide extra protection for pedestrians.

- Broad, raised crosswalks, called "speed tables," help elderly and disabled people and also function to reduce vehicle speed.
- Adequate and frequent WALK time in the signal system to cross the street. Walkers should not have to wait more than 30 seconds for a WALK light.
- Lighting systems which illuminate sidewalks, street corners and crosswalks.



What Else Can Be Done?

In the long run a different approach to land-use planning and zoning would help revitalize streets. Reducing excessive parking requirements would encourage neighborhood shops and restaurants. It would also encourage walking because many residents could walk to these "around the corner" establishments. People on foot create lively, safe neighborhoods.

Walking and public transit are natural allies. Some distances are just too long to walk, but communities can provide convenient walking routes to bus and train stops.

While this booklet emphasizes walking, **WalkBoston** also supports bicycling and other non-polluting transportation options.

Appendix B

Glossary of Useful Transportation Terms

Accessible station	A passenger facility that provides ready access and use. When used by transit personnel the term refers to a station that can be used by people with disabilities, including those who use wheelchairs.
ADT (average daily traffic)	The average number of vehicles passing a fixed point in a 24-hour period. A conventional method for measuring traffic volume.
Advocacy	The art and practice of changing public policies and projects through the actions of community-based groups. Advocates, also called activists, use techniques including meetings, mailings, phone calls and dissemination of informational materials.
Arterial	A major thoroughfare, used primarily for through traffic rather than for traffic which has neighborhood destinations.
Bulbout	(Also called “neckdown” or “curb extension”) a design that extends the end of the sidewalk part way into the parking or travel lane. This configuration makes pedestrians more visible, gives them added protection from turning traffic, and shortens the crosswalk distance.
Bureaucrat	A nonelected government official. Bureaucrats must discharge duties conferred by government, but are constrained by limits on their authority and the resources available to them. They are often expert in a particular field of knowledge.
Bus lane	(Also called “busway”) a roadway or travel lane reserved for buses only.
Catenary	The overhead power line system for electrically propelled rail vehicles, including light-rail cars.
Commuter lane	(Also called “high-occupancy vehicle lane” or “HOV lane”) a right-of-way reserved for vehicles carrying two or more passengers. The minimum permitted number of passengers may vary.

Curb extension	See Bulbout.
Commuter rail	(Also called “regional rail” or “suburban rail”) long haul rail passenger service operating between suburbs or suburbs and city centers.
Curb radius	The degree of curvature of the curb at a corner. Other conditions being equal, a large curb radius allows right-turning vehicles to turn at higher speeds than a small curb radius.
Easement	Legal right to limited use of, or access to, privately owned land.
EIR (Environmental Impact Report)	The Massachusetts version of the federal Environmental Impact Statement, which details the environmental effects of major projects.
EIS (Environmental Impact Statement)	Report which details any adverse economic, social and environmental effects of a proposed project for which federal funding is being sought.
ENF (Environmental Notification Form)	In Massachusetts, an ENF, which is much shorter than an EIR, is required for projects which will have a limited impact. An EIR may then be required, if it is warranted by information in the ENE
EPA (Environmental Protection Agency)	The federal agency which administers federal environmental regulations and programs.
FHWA (Federal Highway Administration)	Agency of the US Department of Transportation that funds highway planning and construction projects.
Fixed-route service	Transit provided on a repetitive, fixed schedule along a specific route
FTA (Federal Transit Administration)	Agency of the US Department of Transportation which funds transit planning and projects.
Headway	The scheduled time interval between any two buses or trains which are operating in the same direction on the same route.
Heavy rail	High-speed, passenger rail cars, operating singly or in trains on an exclusive right-of-way, driven by electric power from an overhead line or third rail.

HOV (High occupancy vehicle)	Vehicles carrying more than one person. See “commuter lane.”
Intermodal	(Also called “multimodal”) transportation involving more than one means of transportation. Usually refers to convenient and safe connections between modes.
ISTEA	ISTEA is the abbreviation for Intermodal Surface Transportation Efficiency Act of 1991, Congressional act which authorized more flexible funding of transportation, thus encouraging development of bicycle and pedestrian facilities.
Kiss and ride	Location where passengers are dropped off at a mass transit station by a family member or friend.
Light rail	(Also called “streetcar,” “tramway,” or “trolley car”) lightweight passenger rail cars in a right-of-way that is not always separated from other traffic, driven by electric power from an overhead line.
Livable community	A community where residents can work, shop, go to school, enjoy recreational activities and get to medical and public service facilities with ease. The community supports the many rich aspects of day-to-day life.
Local street	A street intended for access to properties along the street.
LOS (Level of service)	A set of characteristics that indicate both the quantity and (to the extent that it can be measured) the quality of transportation services provided. For pedestrians, the term can refer to the capacity of a sidewalk or facility to accommodate pedestrian traffic.
Mass transit	(Also called “public transit”) see Transit
Mass transportation	(Also called “public transportation”) transportation service, either privately or publicly owned, and provided to the public on a continuing basis. The terms “mass transportation” and “public transportation” are sometimes used interchangeably with “public transit,” but the latter term is usually taken to have a narrower meaning, implying use of set schedules and routes.
MBTA	Massachusetts Bay Transportation Authority, the public agency

that operates the greater Boston public transit system.

Metropolitan Planning
Organization (MPO)

An organization designated by law with lead responsibility for developing transportation plans and programs for urbanized areas of 50,000 or greater population.

Mode

Term sometimes used as shorthand for “mode of transportation,” in other words, any means of transportation.

Neckdown

See Bulbout.

Official

One who holds an office. This person is in a position of responsibility and some executive authority, but is charged with duties conferred by government for a public purpose.

Park and ride

A parking lot or garage where passengers can park their automobiles while they use mass transit.

Peak hour

(Also called “peak period”) The period with the highest ridership during the entire service day. Peak hours generally occur in the morning and late afternoon when people are going to or leaving work.

Pedestrian-friendly

Description of an environment that is pleasant and inviting for people on foot; specifically, offering sensory appeal, safety, street amenities such as plantings and furniture, good lighting, easy visual and physical access to buildings, and diverse activities.

Person-trip

A trip made by one person from an origin to one destination.

Public transit

See Transit.

Public transit agency

(Also called “transit agency”) a public entity responsible for transit. The agency can operate transit services directly, contract them out, or both.

Rapid transit

A subway-type transit railway operated on exclusive rights-of-way with high level platform stations. Rapid transit also may operate on elevated or at grade level track separated from other traffic. It generally uses longer trains and has longer station spacing than light rail.

Route	An established series of streets and turns for buses.
ROW (Right of way)	The land used by vehicles of a particular transportation mode.
Service area	The square miles of a transit agency's operating area.
SIP (State Implementation Plan)	Required plan for air quality improvements, prepared by states and submitted to the EPA. SIPs identify state actions and programs to meet their responsibilities under the Clean Air Act.
STIP (State Transportation Improvement Program)	State program for funding transportation projects.
SOV (Single occupancy vehicle)	Contrasted with HOVs, a vehicle occupied by one or two people.
Street furniture	Accessories and amenities placed on sidewalks for the convenience of pedestrians; for example, benches or other seating, trash receptacles, drinking fountains, planters, kiosks, clocks, newspaper dispensers or telephones.
Streetcar	See Light rail.
Streetscape	The visual character of a street as determined by elements such as structures, greenery, driveways, open space and other natural and man-made components.
The T	Short for MBTA, nickname for the Massachusetts Bay Transportation Authority, the transit agency which serves greater Boston.
TIP (Transportation Improvement Program)	A document prepared by states and planning commissions, citing projects to be funded under federal transportation programs for the upcoming three years. A project must be included on a TIP to be eligible for federal funding.
TOD (Transit-oriented development)	A planned, modern town where housing, parks and schools are placed within walking distance of shops, civic services, jobs and transit.
Traffic calming	A form of neighborhood traffic control, using physical and visual impediments that cause automobiles to move more slowly.

Transit	(Also called “mass transit,” public transit,” “mass transportation,” or “public transportation”) passenger transportation services, usually of local scope, that are available to any person who pays a prescribed fare. It operates on established schedules along designated routes or lines with specific stops. In some contexts, the term “transit” refers to rail service, whereas “public transit” includes buses, etc.
Transit bus	Bus with front and center doors, low-back seating, and without luggage compartments or restroom for use in frequent-stop service.
Travel time	Customarily, the time it takes to travel from “door-to-door,” including time spent getting to, waiting for, and transferring between vehicles, as well as the time spent on board.
TRB (Transportation Research Board)	Serves to disseminate findings of transportation research, under the direction of the National Research Council.
Trip	The one-way operation of a transit vehicle between two terminus points on a route. Trips are generally identified by direction, e.g., inbound, outbound, eastbound, etc.
Trolley car	See “Light rail.”
TSM (Transportation system management)	Low-cost improvements of a transportation system, such as the use of bus priority or reserved lanes. It includes actions to reduce vehicle use, facilitate traffic flow, and improve internal system management.
VMT (Vehicle miles traveled)	The standard area-wide measure of travel activity. The most conventional method of calculating VMT is to multiply average length of trip by the total number of trips.

Appendix **C**

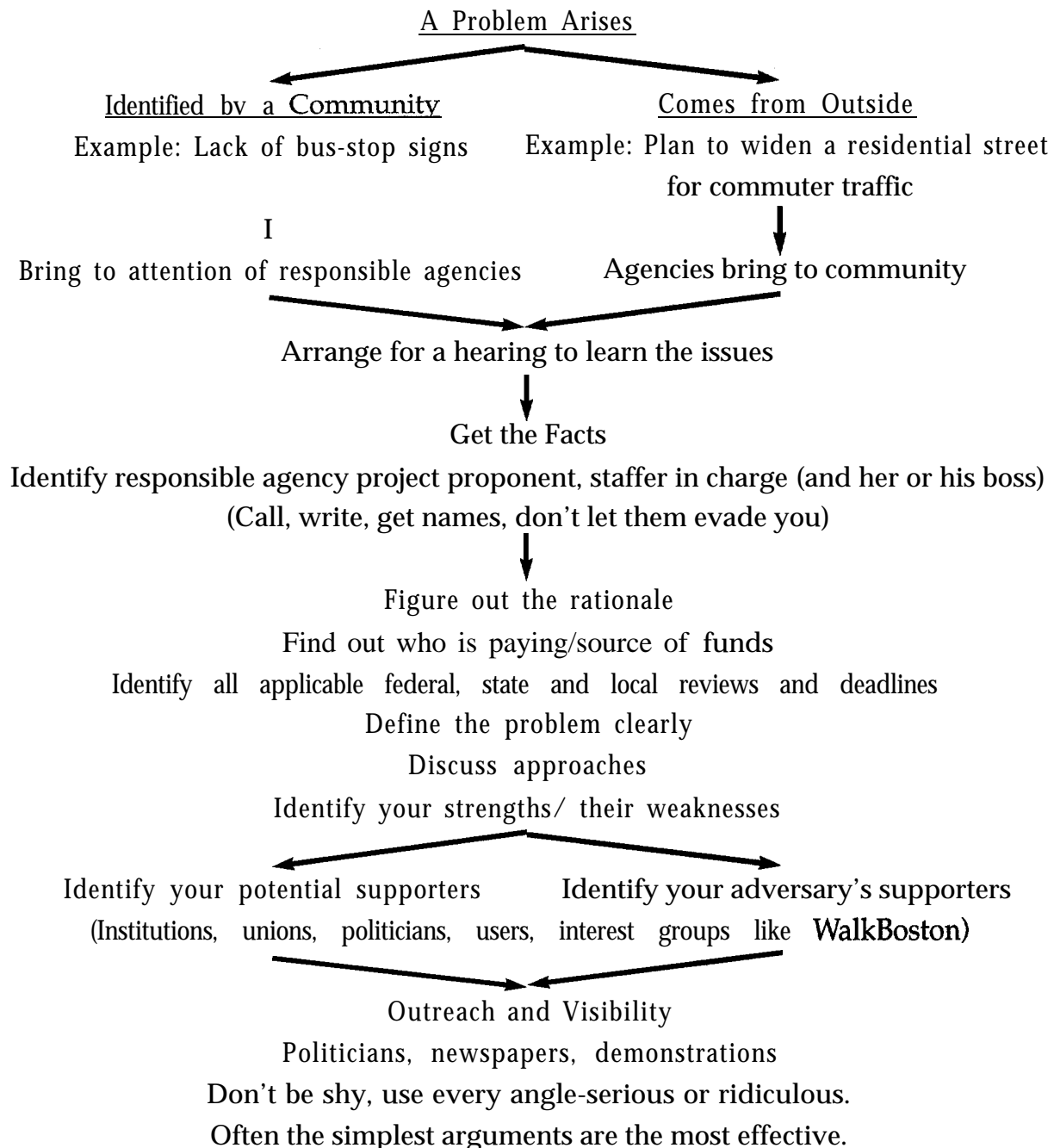
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Appendix D

The Participation Process

Advocates often find that public agencies are eager to respond to their concerns. Sometimes government agencies initiate and invite public participation in projects that will benefit pedestrians and public transit. But when public agencies ignore advocates' concerns or propose projects harmful to safe pedestrian access to public transit, participation becomes a struggle. This is an advocate's somewhat irreverent view of that process.



1. Introduction
The purpose of this report is to provide a detailed analysis of the data collected during the experiment.

The data was collected from a series of experiments conducted over a period of six weeks. The experiments were designed to investigate the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide. The results of the experiments are presented in the following tables and graphs.

The data shows that the rate of reaction increases with increasing temperature. This is expected, as the rate of reaction is directly proportional to the temperature.

The data also shows that the rate of reaction is affected by the concentration of the reactants. The rate of reaction increases with increasing concentration of the reactants.

WalkBoston is a member-based, non-profit, advocacy group dedicated to promoting walking as a transportation alternative. Members participate in citizen review of transportation and development projects and in professional conferences and symposia. WalkBoston runs an ongoing educational program aimed at creating a broader understanding of pedestrian needs and the impact of roadway and transit design on the safety and comfort of walkers.

This report was written by Don Eunson, Dorothea Hass, Ann M. Hershfang and Louise L. Kittredge; Chang-Ming Chen, Kenneth A. Dumas, Don Eunson and Jonathan Seward produced graphics. We are grateful for the help and constructive suggestions of Kathy Bagdonas, Joan Blaustein, Stephen Falbel, Frank Goetzke, Mary Beth Mello, Andrew E. Motter, Eric Scheier, Kent Stasiowski, and Max Vigil.

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